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NEWS 8 DEC 21 IPC search and display fields enhanced in CA/Caplus with the
NEWS 9 DEC 21 IPC reform
NEWS 10 DEC 23 New IPC8 SEARCH, DISPLAY, and SELECT fields in USPATFULL/
NEWS 11 USPAT12
NEWS 12 IPC 8 searching in IIPAT, IPIUDB, and IFCDB
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=> s rhodium porphyrin
67191 RHODIUM
31 RHODIUMS
67192 RHODIUM
(RHODIUM OR RHODIUMS)
34445 PORPHYRIN
24084 PORPHYRINS
40529 PORPHYRIN
(PORPHYRIN OR PORPHYRINS)
L1 169 RHODIUM PORPHYRIN
(RHODIUM(W) PORPHYRIN)

=> s l1 and oxidation catalyst
425964 OXIDATION
4807 OXIDATIONS
427215 OXIDATION
(OXIDATION OR OXIDATIONS)
731786 OXIDN
9206 OXIDNS
733707 OXIDN
(OXIDN OR OXIDNS)
867044 OXIDATION
(OXIDATION OR OXIDN)
710356 CATALYST
713583 CATALYSTS
911075 CATALYST
(CATALYST OR CATALYSTS)
64646 OXIDATION CATALYST
(OXIDATION(W) CATALYST)
L2 5 L1 AND OXIDATION CATALYST

=> d 1-5

L2 ANSWER 1 OF 5 CAPLUS COPYRIGHT 2006 ACS on STN
AN 2000:805885 CAPLUS
DN 134:56831
TI Regioselective oxidations of equilenin derivatives catalyzed by a
rhodium(III) porphyrin complex-contrast with the manganese(III) porphyrin
Yang, Jerry; Breslow, Ronald
CS Department of Chemistry, Columbia University, New York, NY, 10027, USA
SO Tetrahedron Letters (2000), 41(42), 8063-8067
CODEN: TETLEA; ISSN: 0040-4039
PB Elsevier Science Ltd.
DT Journal
LA English
OS CASREACT 134:56831

THIS PART OF
SEARCH FOCUSSED
ON ONLY THE KNOWN
UTILITIES OF Rh.
PORPHYRIN CATALYSTS

RE.CNT 9 THERE ARE 9 CITED REFERENCES AVAILABLE FOR THIS RECORD
ALL CITATIONS AVAILABLE IN THE RE FORMAT

L2 ANSWER 2 OF 5 CAPLUS COPYRIGHT 2006 ACS on STN
DN 136:69184
TI Development of supramolecular metalloprotein mimics
AU Felters, M. C.; Gebbink, R. J. M. Klein; Schenning, A. P. H. J.; van
Strijdonck, G. P. F.; Martens, C. F.; Nolte, R. J. M.
CS Dep. Org. Chem., Univ. Nijmegen, Nijmegen, 6525 ED, Neth.
SO Pure and Applied Chemistry (1996), 68(11), 2163-2170
CODEN: PACHAS; ISSN: 0033-4545
PB Blackwell
DT Journal; General Review
LA English

L2 ANSWER 3 OF 5 CAPLUS COPYRIGHT 2006 ACS on STN
AN 1987:438763 CAPLUS
DN 107:38763
TI Catalytic reactions of metalloporphyrins. 3. Catalytic modification of
hydroboration-oxidation of olefins with rhodium(III) porphyrin as catalyst
AU Aoyama, Yasuhiro; Tanaka, Yasutaka; Fujisawa, Takeshi; Watanabe,
Takamichi; Toi, Hiroo; Ogoshi, Hisanobu
CS Dep. Mater. Sci. Technol., Technol. Univ. Nagasaki, Nagasaki, 840-21, Japan
SO Journal of Organic Chemistry (1987), 52(12), 2555-9
CODEN: JOCEAH; ISSN: 0022-3263
DT Journal
LA English
OS CASREACT 107:38763

L2 ANSWER 4 OF 5 CAPLUS COPYRIGHT 2006 ACS on STN
AN 1983:521857 CAPLUS
DN 99:121857
TI Efficient olefin oxygenation with tetrahydroborate and dioxigen catalyzed
by a rhodium porphyrin complex
AU Aoyama, Yasuhiro; Watanabe, Takamichi; Onda, Hiroyuki; Ogoshi, Hisanobu
CS Dep. Mater. Sci., Technol. Univ. Nagasaki, Niigata, 949, Japan
SO Tetrahedron Letters (1983), 24(11), 1183-6
CODEN: TELEAV; ISSN: 0040-4039
DT Journal
LA English

L2 ANSWER 5 OF 5 CAPLUS COPYRIGHT 2006 ACS on STN
AN 1982:225242 CAPLUS
DN 96:225242
TI Selective electrooxidation of carbon monoxide with carbon-supported
rhodium and iridium porphyrins at low potentials in acid electrolyte
van Baar, J. F.; Van Veen, J. A. R.; De Wit, N.
CS K./Shell-Lab., Shell Res. B. V., Amsterdam, Neth.
SO Electrochimica Acta (1982), 27(1), 57-9
CODEN: ELCAAV; ISSN: 0013-4686
DT Journal
LA English

=> d is
'IS' IS NOT A VALID FORMAT FOR FILE 'CAPLUS'
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ALL ----- BIB, AB, IND, RE
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IBIB ----- BIB, indented with text labels
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structure diagram, plus NTE and SEQ fields
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FILE 'CAPLUS' ENTERED AT 08:05:25 ON 17 JAN 2006
L1 169 S RHODIUM PORPHYRIN
L2 5 S L1 AND OXIDATION CATALYST

=> s l1 not l2
L3 164 l1 NOT L2

=> s l1 and superior and conventional
144991 SUPERIOR
11 SUPERIORS
145001 SUPERIOR
(SUPERIOR OR SUPERIORS)
360292 CONVENTIONAL
17 CONVENTIONALS
360303 CONVENTIONAL
(CONVENTIONAL OR CONVENTIONALS)
L4 0 L1 AND SUPERIOR AND CONVENTIONAL

=> s l1 and superior
144991 SUPERIOR
11 SUPERIORS
145001 SUPERIOR
(SUPERIOR OR SUPERIORS)
L5 0 L1 AND SUPERIOR

=> s l1 and advantageous
26567 ADVANTAGEOUS
0 L1 AND ADVANTAGEOUS
L6

=> s l1 and sulf?
1679066 SULF?
13 L1 AND SULF?
L7

=> d 1-13

L7 ANSWER 1 OF 13 CAPLUS COPYRIGHT 2006 ACS on STN
AN 2005:1171223 CAPLUS
TI Thermodynamics of Rhodium Hydride Reactions with CO, Aldehydes, and Olefins in Water: Organo-Rhodium Porphyrin Bond Dissociation Free Energies
AU Fu, Xuefeng; Wayland, Bradford B.
CS Department of Chemistry, University of Pennsylvania, Philadelphia, PA, 19104-6323, USA
SO Journal of the American Chemical Society (2005), 127(47), 16460-16467
CODEN: JACSAT; ISSN: 0002-7863
PB American Chemical Society
DT Journal
LA English
RE.CNT 48

THERE ARE 48 CITED REFERENCES AVAILABLE FOR THIS RECORD
ALL CITATIONS AVAILABLE IN THE RE FORMAT

L7 ANSWER 2 OF 13 CAPLUS COPYRIGHT 2006 ACS on STN
AN 2004:661765 CAPLUS
TI Equilibrium thermodynamic studies for reactions of rhodium porphyrin hydride with CO, aldehydes and olefins in aqueous media
AU Fu, Xuefeng; Wayland, Bradford B.
CS Department of Chemistry, University of Pennsylvania, Philadelphia, PA, 19104, USA
SO Abstracts of Papers, 228th ACS National Meeting, Philadelphia, PA, United States, August 22-26, 2004 (2004), INOR-600 Publisher: American Chemical Society, Washington, D. C.
CODEN: 69FRZ8
DT Conference: Meeting Abstract
LA English

L7 ANSWER 3 OF 13 CAPLUS COPYRIGHT 2006 ACS on STN
AN 2004:354167 CAPLUS
DN 141:321728
TI Spectral properties of cationic water-soluble metalloporphyrins immobilized in a perfluorosulfonated ion-exchange membrane
AU Vasil'ev, Victor V.; Borisov, Sergey V.; Maldotti, Andrea; Molinari,

Alessandra
Department of Chemistry, Russian State Pedagogical University, St. Petersburg, 191186, Russia
SO Journal of Porphyrins and Pthalocyanines (2003), 7(11 & 12), 780-786
CODEN: JPPHFZ; ISSN: 1088-4246
PB Society of Porphyrins & Pthalocyanines
DT Journal
LA English
RE.CNT 48

THERE ARE 48 CITED REFERENCES AVAILABLE FOR THIS RECORD
ALL CITATIONS AVAILABLE IN THE RE FORMAT

L7 ANSWER 4 OF 13 CAPLUS COPYRIGHT 2006 ACS on STN
AN 2004:87921 CAPLUS
DN 140:310322
TI Equilibrium Thermodynamic Studies in Water: Reactions of Dihydrogen with Rhodium(III) Porphyrins Relevant to Rh-Rh, Rh-H, and Rh-OH Bond Energetics
AU Fu, Xuefeng; Wayland, Bradford B.
CS Department of Chemistry, University of Pennsylvania, Philadelphia, PA, 19104-6323, USA
SO Journal of the American Chemical Society (2004), 126(8), 2623-2631
CODEN: JACSAT; ISSN: 0002-7863
PB American Chemical Society
DT Journal
LA English
RE.CNT 47

THERE ARE 47 CITED REFERENCES AVAILABLE FOR THIS RECORD
ALL CITATIONS AVAILABLE IN THE RE FORMAT

L7 ANSWER 5 OF 13 CAPLUS COPYRIGHT 2006 ACS on STN
AN 2003:551347 CAPLUS
DN 139:111611
TI Porphyrins with virucidal activity, and use in the treatment of sexually transmitted diseases
IN Compans, Richard W.; Marzilli, Luigi G.; Sears, Amy E.; Dixon, Dabney W.
PA Emory University, USA; Georgia State University Research Foundation, Inc.
SO PCT Int. Appl., 62 pp.
CODEN: FIXXD2
DT Patent
LA English
FAN.CNT 1

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
WO 2003057176	A2	20030717	WO 2003-US532	20030108
WO 2003057176	A3	20040916		
W: AE, AG, AL, AM, AT, AU, AZ, BA, BB, BG, BR, BY, BZ, CA, CH, CN, CO, CR, CU, CZ, DE, DK, DM, DZ, EC, EE, ES, FI, GB, GD, GE, GH, GM, GR, HU, ID, IL, IN, IS, JP, KE, KG, KP, KR, KZ, LC, LK, LR, LS, LT, LU, LV, MA, MD, MG, MK, MN, MM, MX, MY, NZ, OM, PH, PL, PT, RO, RU, SC, SD, SE, SG, SK, SL, TJ, TM, TN, TR, TT, TZ, UA, UG, UZ, VN, VC, VN, YU, ZA, ZM, ZW				
RW: GH, GM, KE, LS, MW, MZ, SD, SL, SZ, TZ, UG, ZM, ZW, AM, AZ, BY, KG, KZ, MD, RU, TJ, TM, AT, BE, BG, CH, CY, CZ, DE, DK, EE, ES, FI, FR, GB, GR, HU, IE, IT, LU, MC, NL, PT, SE, SI, SK, TR, BF, BJ, CF, CG, CI, CM, CA, GN, GQ, GW, ML, MR, NE, SN, TD, TG				
CA 2472583	AA	20030717	CA 2003-2472583	20030108
EP 1480638	A2	20041201	EP 2003-708820	20030108
R: AT, BE, CH, DE, DK, ES, FR, GB, GR, IT, LI, LU, NL, SE, MC, PT, IE, SI, LT, LV, FI, RO, MK, CY, AL, TR, BG, CZ, EE, HU, SK				
US 2005090428	A1	20050428	US 2003-500884	20030108
US 2002-347197P	P	20020108		
WO 2003-US532	W	20030108		
OS				
MAEPAT 139-111611				

L7 ANSWER 6 OF 13 CAPLUS COPYRIGHT 2006 ACS on STN
AN 2003:183713 CAPLUS
TI Aqueous organometallic reactions of rhodium porphyrins

Fu, Xuefeng; Wayland, Bradford B.
Department of Chemistry, University of Pennsylvania, Philadelphia, PA,
19104-6323, USA
Abstracts of Papers, 225th ACS National Meeting, New Orleans, LA, United
States, March 23-27, 2003 (2003), INOR-670 Publisher: American Chemical
Society, Washington, D. C.
CODEN: 69DSA4
Conference: Meeting Abstract
English

DT L7 ANSWER 7 OF 13 CAPLUS COPYRIGHT 2006 ACS on STN
AN 2003:107410 CAPLUS
DN 139:69353
TI Aqueous organometallic reactions of **rhodium porphyrins**
: equilibrium thermodynamics
AU Fu, Xuefeng; Basickes, Leah; Wayland, Bradford B.
CS Department of Chemistry, University of Pennsylvania, Philadelphia, PA,
19104-6323, USA
SO Chemical Communications (Cambridge, United Kingdom) (2003), (4), 520-521
CODEN: CHCOFS; ISSN: 1359-7345
PB Royal Society of Chemistry
DT Journal
LA English
OS CASREACT 139:69353
RE.CNT 22 THERE ARE 22 CITED REFERENCES AVAILABLE FOR THIS RECORD
ALL CITATIONS AVAILABLE IN THE RE FORMAT

L7 ANSWER 8 OF 13 CAPLUS COPYRIGHT 2006 ACS on STN
AN 2002:617757 CAPLUS
TI Anionic water-soluble β -octafluorinated porphyrins
AU Biffinger, Justin C.; Sun, Haoran; DiMaggio, Stephen G.
CS Department of Chemistry, University of Nebraska, Lincoln, NE, 68588-0304,
USA
SO Abstracts of Papers, 224th ACS National Meeting, Boston, MA, United
States, August 18-22, 2002 (2002), INOR-605 Publisher: American Chemical
Society, Washington, D. C.
CODEN: 69C2F2
Conference: Meeting Abstract
English

L7 ANSWER 9 OF 13 CAPLUS COPYRIGHT 2006 ACS on STN
AN 2000:330952 CAPLUS
TI Aqueous organometallic reactions of **rhodium porphyrins**
AU Basickes, Leah; Wayland, Bradford B.
CS Department of Chemistry, University of Pennsylvania, Philadelphia, PA,
19104-6323, USA
SO Book of Abstracts, 219th ACS National Meeting, San Francisco, CA, March
26-30, 2000 (2000), INOR-190 Publisher: American Chemical Society,
Washington, D. C.
CODEN: 69CLAC
Conference: Meeting Abstract
English

L7 ANSWER 10 OF 13 CAPLUS COPYRIGHT 2006 ACS on STN
AN 1998:435602 CAPLUS
DN 129:144214
TI Behavior of rhodium(III) complexes with water-soluble porphyrins in
solutions
AU Golovina, I. V.; Vasil'ev, V. V.
CS Gertsen State Pedagogical University, St. Petersburg, Russia
SO Russian Journal of Coordination Chemistry (Translation of
Koordinatsionnaya Khimiya) (1998), 24(6), 412-415
CODEN: RUCCEX; ISSN: 1070-3284
PB MALK Nauka/interperiodica Publishing

DT Journal
LA English
RE.CNT 26 THERE ARE 26 CITED REFERENCES AVAILABLE FOR THIS RECORD
ALL CITATIONS AVAILABLE IN THE RE FORMAT

L7 ANSWER 11 OF 13 CAPLUS COPYRIGHT 2006 ACS on STN
AN 1996:705078 CAPLUS
DN 126:69184
TI Development of supramolecular metalloprotein mimics
AU Feiters, M. C.; Gebbink, R. J. M. Klein; Schenning, A. P. H. J.; van
Strijdonck, G. P. F.; Martens, C. F.; Nolte, R. J. M.
CS Dep. Org. Chem., Univ. Nijmegen, Nijmegen, 6525 ED, Neth.
SO Pure and Applied Chemistry (1996), 68(11), 2163-2170
CODEN: PACHAS; ISSN: 0033-4545
PB Blackwell
DT Journal; General Review
LA English

L7 ANSWER 12 OF 13 CAPLUS COPYRIGHT 2006 ACS on STN
AN 1993:652383 CAPLUS
DN 119:252383
TI Reactions of metal ion complexes with lignin model compounds. Part III.
Rh(TSP) catalyzed formation of guaiacol from β -aryl ethers in
exceptionally high yield
AU Watson, Paul A.; Wright, L. James; Fullerton, Terry J.
CS Dep. Chem., Univ. Auckland, Auckland, N. Z.
SO Journal of Wood Chemistry and Technology (1993), 13(3), 411-28
CODEN: JWCSTD; ISSN: 0277-3813
DT Journal
LA English

L7 ANSWER 13 OF 13 CAPLUS COPYRIGHT 2006 ACS on STN
AN 1985:194962 CAPLUS
DN 102:194962
TI Radiolytic studies of the redox reactions and alkylation of rhodium
tetrakis(4-sulfonatophenyl)porphyrin in aqueous solutions
AU Baral, S.; Hambricht, P.; Harriman, A.; Neta, P.
CS Radiat. Lab., Univ. Notre Dame, Notre Dame, IN, 46556, USA
SO Journal of Physical Chemistry (1985), 89(10), 2037-42
CODEN: JPCHAX; ISSN: 0022-3654
DT Journal
LA English

=> d abs 9

L7 ANSWER 9 OF 13 CAPLUS COPYRIGHT 2006 ACS on STN
AB Reactions of rhodium porphyrins with small mol. substrates in water were
performed and the equilibrium consts. for these reactions were determined
Rhodium
tetra (4-sulfonatophenyl)porphyrin [(TSP)Rh], reacts with
dihydrogen, carbon monoxide and olefins in water to form the hydride,
formyl and β -hydroxy alkyl derivs. Results from these studies will
be presented in the context of substrate reactions of **rhodium
porphyrins** with dihydrogen, carbon monoxide and ethene in non-aqueous
media.

=> s sulfamidat? and porph?
111 SULFAMIDAT?
69668 PORPH?
4 SULFAMIDAT? AND PORPH?

L8

=> d l-4

L8 ANSWER 1 OF 4 CAPLUS COPYRIGHT 2006 ACS on STN
AN 2004:1019826 CAPLUS
DN 142:6560
TI Intramolecular amidation of sulfamates 1,2,3-oxathiazolidine-2,2-dione and tetrahydro-1,2,3-oxathiazine-2,2-dione derivatives catalyzed by metalloporphyrins
IN Che, Chi-Ming; Liang, Jiang-Lin
PA Hong Kong
SO U.S. Pat. Appl. Publ., 12 pp., Cont.-in-part of U.S. Ser. No. 202,581.
CODEN: USXXCO
DT Patent
LA English
FAM.CNT 2

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
PI US 2004236099	A1	20041125	US 2004-790810	20040303
PRAI US 2004019204	A1	20040129	US 2002-202581	20020723
OS MARPAT 142:6560	A2	20020723		

L8 ANSWER 2 OF 4 CAPLUS COPYRIGHT 2006 ACS on STN
AN 2004:363764 CAPLUS
DN 141:123207
TI Intramolecular C-N Bond Formation Reactions Catalyzed by Ruthenium Porphyrins: Amidation of Sulfamate Esters and Aziridination of Unsaturated Sulfonamides
AU Liang, Jiang-Lin; Yuan, Shi-Xue; Huang, Jie-Sheng; Che, Chi-Ming
CS Department of Chemistry and Open Laboratory of Chemical Biology, Institute of Molecular Technology for Drug Discovery and Synthesis, University of Hong Kong, Hong Kong
SO Journal of Organic Chemistry (2004), 69(11), 3610-3619
CODEN: JOCEAH; ISSN: 0022-3263
PB American Chemical Society
DT Journal
LA English
OS CASREACT 141:123207

RE.CNT 59 THERE ARE 59 CITED REFERENCES AVAILABLE FOR THIS RECORD
ALL CITATIONS AVAILABLE IN THE RE FORMAT

L8 ANSWER 3 OF 4 CAPLUS COPYRIGHT 2006 ACS on STN
AN 2004:76042 CAPLUS
DN 140:128437
TI Preparation of cyclic sulfamides by metalloporphyrin-catalyzed oxidative intramolecular amidation of sulfamate esters.
IN Che, Chiming; Liang, Jianglin
PA The University of Hong Kong, Peop. Rep. China
SO Eur. Pat. Appl., 16 pp.
CODEN: EPXXDW
DT Patent
LA English
FAM.CNT 2

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
PI EP 1384718	A1	20040128	EP 2003-102223	20030718
R: AT, BE, CH, DE, DK, ES, FR, GB, GR, IT, LI, LU, NL, SE, MC, PT, IE, SI, LT, LV, FI, RO, MK, CY, AL, TR, BG, CZ, EE, HU, SK				
US 2004019204	A1	20040129	US 2002-202581	20020723
PRAI US 2002-202581	A	20020723		
OS CASREACT 140:128437				

RE.CNT 2 THERE ARE 2 CITED REFERENCES AVAILABLE FOR THIS RECORD
ALL CITATIONS AVAILABLE IN THE RE FORMAT

L8 ANSWER 4 OF 4 CAPLUS COPYRIGHT 2006 ACS on STN
AN 2002:756471 CAPLUS
DN 138:187747

TI Highly diastereo- and enantioselective intramolecular amidation of saturated C-H bonds catalyzed by ruthenium **porphyrins**
AU Liang, Jiang-Lin; Yuan, Shi-Xue; Huang, Jie-Sheng; Yu, Wing-Yiu; Che, Chi-Ming
CS Department of Chemistry and Open Laboratory of Chemical Biology of the Institute of Molecular Technology for Drug Discovery and Synthesis, The University of Hong Kong, Hong Kong
SO Angewandte Chemie, International Edition (2002), 41(18), 3465-3468
CODEN: ACIEF5; ISSN: 1433-7851
PB Wiley-VCH Verlag GmbH & Co. KGaA
DT Journal
LA English
OS CASREACT 138:187747

RE.CNT 38 THERE ARE 38 CITED REFERENCES AVAILABLE FOR THIS RECORD
ALL CITATIONS AVAILABLE IN THE RE FORMAT

=> s porphyrin and superior and conventional and cataly?
34445 PORPHYRIN
24064 PORPHYRINS
40529 PORPHYRIN
(PORPHYRIN OR PORPHYRINS)
144991 SUPERIOR
11 SUPERIORS
145001 SUPERIOR
(SUPERIOR OR SUPERIORS)
360292 CONVENTIONAL
17 CONVENTIONALS
360303 CONVENTIONAL
(CONVENTIONAL OR CONVENTIONALS)
1289814 CATALY?
L9 1 PORPHYRIN AND SUPERIOR AND CONVENTIONAL AND CATALY?
=> d

L9 ANSWER 1 OF 1 CAPLUS COPYRIGHT 2006 ACS on STN
AN 1999:496146 CAPLUS
DN 131:296250
TI Synthesis of meso-tetra-(3,5-dibromo-4-hydroxyphenyl)-**porphyrin** and its application to second-derivative spectrophotometric determination of lead in clinical samples
AU Li, Zaijun; Zhu, Zhengzhong; Tang, Jan; Pan, Jiaomai
CS Dep. Chem. Eng., Wuxi University of Light Industry, Wuxi, 214036, Peop. Rep. China
SO Analyst (Cambridge, United Kingdom) (1999), 124(8), 1227-1231
CODEN: ANALAO; ISSN: 0003-2654
PB Royal Society of Chemistry
DT Journal
LA English
RE.CNT 30 THERE ARE 30 CITED REFERENCES AVAILABLE FOR THIS RECORD
ALL CITATIONS AVAILABLE IN THE RE FORMAT

=> s metalloporphyrin catalysts
3791 METALLOPORPHYRIN
5569 METALLOPORPHYRINS
6965 METALLOPORPHYRIN
(METALLOPORPHYRIN OR METALLOPORPHYRINS)
713563 CATALYSTS
1 CATALYSTSES
713563 CATALYSTS
(CATALYSTS OR CATALYSTSES)
L10 121 METALLOPORPHYRIN CATALYSTS
(METALLOPORPHYRIN(W)CATALYSTS)

=> s l10 and rhodium
67191 RHODIUM
31 RHODIUMS
67192 RHODIUM
(RHODIUM OR RHODIUMS)
L11 3 L10 AND RHODIUM

=> d l-3

L11 ANSWER 1 OF 3 CAPLUS COPYRIGHT 2006 ACS on STN
AN 1995:27111 CAPLUS
DN 122:159797
TI Carbene insertion into oxygen-hydrogen bonds by **metalloporphyrin catalysts**
AU Hayashi, Takashi; Kato, Tomoki; Kaneko, Tomomasa; Asai, Tomohito; Ogoshi, Hisanobu
CS Department of Synthetic Chemistry and Biological Chemistry, Faculty of Engineering, Kyoto University, Sakyo-ku, Kyoto, 606-01, Japan
SO Journal of Organometallic Chemistry (1994), 473(1-2), 323-7
CODEN: JORCAI; ISSN: 0022-328X
DT Journal
LA English
OS CASREACT 122:159797

L11 ANSWER 2 OF 3 CAPLUS COPYRIGHT 2006 ACS on STN
AN 1993:494707 CAPLUS
DN 119:94707
TI Processes for producing carbamates and isocyanates
IN Leung, Tak W.; Dombek, Bernard D.
PA Union Carbide Chemicals and Plastics Technology Corp., USA
SO U.S., 13 pp.
CODEN: USXXAM
DT Patent
LA English
FAN.CNT 1

PI US 5194660
PRAI US 1990-631962
OS CASREACT 119:94707

L11 ANSWER 3 OF 3 CAPLUS COPYRIGHT 2006 ACS on STN
AN 1989:464960 CAPLUS
DN 111:64960
TI Method for supporting metalloporphyrins on polybenzimidazole porous articles for catalysts
IN Shepherd, James P.
PA Hoechst Celanese Corp., USA
SO U.S., 10 pp.
CODEN: USXXAM
DT Patent
LA English
FAN.CNT 1

PI US 4800188
PRAI US 1987-28353

=> d abs 2

L11 ANSWER 2 OF 3 CAPLUS COPYRIGHT 2006 ACS on STN
AB Carbamates are prepared by oxidative carbonylation of primary or secondary amines or ureas with CO in presence of an alc., an O-containing oxidizing agent, metalloporphyrin or metal phthalocyanine catalyst derived from

Group IIIa-Va and Group VIII metals, and an iodine-containing promoter. Decomposition of carbamates prepared in this manner affords isocyanates. reaction of 3.0 g tert-BuNH₂, 0.20 g CoPC (PC = phthalocyanine dianion), and 1.0 g NaI with 40 g EtOH under 80 psi O₂/1520 psi CO afforded 99% yield of Et N-tert-Bu carbamate.

=> s l10 not l11
131707 l11
L12 121 L10 NOT l11

=> s l10 not l11
L13 118 L10 NOT l11

=> s l13 and (superior or advantageous or better)
144991 SUPERIOR
11 SUPERIORS
145001 SUPERIOR
(SUPERIOR OR SUPERIORS)
26567 ADVANTAGEOUS
360922 BETTER
31 BETTERS
360949 BETTER
(BETTER OR BETTERS)

L14 8 L13 AND (SUPERIOR OR ADVANTAGEOUS OR BETTER)

=> d l-8

L14 ANSWER 1 OF 8 CAPLUS COPYRIGHT 2006 ACS on STN
AN 1995:83814 CAPLUS
DN 122:34704
TI Biomimetic catalyst development for natural gas conversion
AU Showalter, Margaret C.; Shelnutt, John A.; Medforth, Craig J.; Quirk, J. Martin E.
CS Fuel Sci. Dep., Sandia Natl. Lab., Albuquerque, NM, 87185-0710, USA
SO Preprints of Papers - American Chemical Society, Division of Fuel Chemistry (1994), 39(4), 1002-5
CODEN: ACFFAI; ISSN: 0569-3772
PB American Chemical Society, Division of Fuel Chemistry
DT Journal
LA English

L14 ANSWER 2 OF 8 CAPLUS COPYRIGHT 2006 ACS on STN
AN 1994:273484 CAPLUS
DN 120:273484
TI Meso-aryl substituted metalloporphyrins supported on imidazole propyl gel (IFG). Catalytic activity in the oxidation of cyclohexane and characterization of iron porphyrin-IFG systems
AU Imanoto, Yasuko; Ciuffi, Katia Jorge; Sacco, Herica Cristina; Prado, Cynthia Maria C.; de Moraes, Margarida; Nascimento, Otaciro Rangel
CS Dep. Quim., Univ. Sao Paulo, Ribeirao Preto, Brazil
SO Journal of Molecular Catalysis (1994), 88(2), 167-76
CODEN: JMCADS; ISSN: 0304-5102

L14 ANSWER 3 OF 8 CAPLUS COPYRIGHT 2006 ACS on STN
AN 1993:448837 CAPLUS
DN 119:48837
TI Anchored manganese and ruthenium porphyrins as catalysts in the decomposition of cyclohexyl hydroperoxide
AU Hansen, C. B.; Hoogers, G. J.; Drenth, W.
CS Debye Inst., Utrecht Univ., Utrecht, 3584 CH, Neth.
SO Journal of Molecular Catalysis (1993), 79(1-3), 153-63
CODEN: JMCADS; ISSN: 0304-5102

DT Journal
LA English
OS CASREACT 119:48837

L14 ANSWER 4 OF 8 CAPLUS COPYRIGHT 2006 ACS on STN
AN 1993:124017 CAPLUS
DN 118:124017

TI Studies on the catalytic effects of organic compounds by polymer-bonded metalloporphyrins
AU Lee, Sung Ju; Paeng, Ki Jung; Wang, Kyu Ja
CS Dep. Chem., Yonsei Univ., Wonju, 222-701, S. Korea
SO Journal of the Korean Chemical Society (1992), 36(5), 744-52
CODEN: JKCSZ; ISSN: 0418-2472

DT Journal
LA Korean

L14 ANSWER 5 OF 8 CAPLUS COPYRIGHT 2006 ACS on STN
AN 1992:514005 CAPLUS
DN 117:114005

TI Nitrate metalloporphyrins as catalysts for alkane oxidation
IN Ellis, Paul E., Jr.; Lyons, James E.
PA Sun Refining and Marketing Co., USA
SO U.S., 3 pp.
CODEN: USXXAM

DT Patent
LA English
FAN.CNT 3

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
PI US 5120882	A	19920609	US 1991-758147	19910912
US 5280115	A	19940118	US 1992-892106	19920602
CA 2077983	AA	19930313	CA 1992-2077983	19920910
EP 532326	A2	19930317	EP 1992-308246	19920910
EP 532326	A3	19930428		
EP 532326	B1	19960417		

R: BE, DE, FR, GB, IT, NL
JP 05262684 A2 19931012 JP 1992-267792 19920911
PRAI US 1991-758147 A2 19910912
US 1992-892106 A 19920602
OS MARPAT 117:114005

L14 ANSWER 6 OF 8 CAPLUS COPYRIGHT 2006 ACS on STN
AN 1991:655400 CAPLUS
DN 115:255400

TI Highly oxidation resistant inorganic-porphyrin analog polyoxometalate and aromatic hydroxylations starting from α_2 -P2W17O61(Mn+Br)(n-11) (Mn+ = Mn3+, Fe3+, Co2+, Ni2+, Cu2+), including quantitative comparisons to metalloporphyrin catalysts
AU Mansuy, Daniel; Bartoli, Jean Francois; Battioni, Pierrette; Lyon, David
K.; Finke, Richard G.
CS Lab. Chim. Blochim. Pharmacol. Toxicol., Univ. Rene Descartes, Paris, 75270, Fr.
SO Journal of the American Chemical Society (1991), 113(19), 7222-6
CODEN: JACSAT; ISSN: 0002-7863

DT Journal
LA English
OS CASREACT 115:255400

L14 ANSWER 7 OF 8 CAPLUS COPYRIGHT 2006 ACS on STN
AN 1986:608315 CAPLUS
DN 105:208315

TI Shape-selective alkane hydroxylation by metalloporphyrin catalysts
AU Cook, Bruce R.; Reinert, Thomas J.; Suslick, Kenneth S.

CS Sch. Chem. Sci., Univ. Illinois, Urbana, IL, 61801, USA
SO Journal of the American Chemical Society (1986), 108(23), 7281-6
CODEN: JACSAT; ISSN: 0002-7863

DT Journal
LA English
OS CASREACT 105:208315

L14 ANSWER 8 OF 8 CAPLUS COPYRIGHT 2006 ACS on STN
AN 1983:160198 CAPLUS
DN 98:160198

TI Oxidation of sulfide with iodosylarenes catalyzed with metalloporphyrin chlorides
AU Ando, Wataru; Tajima, Rieko; Takata, Toshikazu
CS Dep. Chem., Univ. Tsukuba, Ibaraki, 305, Japan
SO Tetrahedron Letters (1982), 23(16), 1685-8
CODEN: TELEAY; ISSN: 0040-4039

DT Journal
LA English
OS CASREACT 98:160198

=> s c-h bond oxidation
3401172 C
2609279 H
523944 BOND
260073 BONDS
673238 BOND (BOND OR BONDS)
425964 OXIDATION
4807 OXIDATIONS
427215 OXIDATION
(OXIDATION OR OXIDATIONS)
731786 OXIDN
9206 OXIDS
733707 OXIDN (OXIDN OR OXIDS)
867044 OXIDATION
(OXIDATION OR OXIDN)
L15 31 C-H BOND OXIDATION
(C(W)H(W)BOND(W)OXIDATION)

=> s l15 and porph?
L16 69668 PORPH?
2 L15 AND PORPH?

=> d l-2

L16 ANSWER 1 OF 2 CAPLUS COPYRIGHT 2006 ACS on STN
AN 1997:621274 CAPLUS
DN 127:314073

TI Synthesis, characterization and reactivity of novel bis(tosylimido) ruthenium(VI) porphyrin complexes; x-ray crystal structure of a tosylimido ruthenium(IV) porphyrin
AU Sze-Man; Fung, Wai-Hong; Cheng, Ming-Chuan; Che, Chi-Ming; Peng, Shie-Ming
CS Department of Chemistry, The University of Hong Kong, Hong Kong, 1997, (17), 1655-1656
SO Chemical Communications (Cambridge) (1997), (17), 1655-1656
CODEN: CHCOFS; ISSN: 1359-7345

PB Royal Society of Chemistry
DT Journal
LA English
RE.CNT 16

THERE ARE 16 CITED REFERENCES AVAILABLE FOR THIS RECORD
ALL CITATIONS AVAILABLE IN THE RE FORMAT

L16 ANSWER 2 OF 2 CAPLUS COPYRIGHT 2006 ACS on STN

AN 1997:440256 CAPLUS
DN 127:121428
TI Origin of the Oxygen Atom in C-H Bond
AU Oxidations Catalyzed by a Water-Soluble Metalloporphyrin
AU Balahura, Robert J.; Sorokin, Alexander; Bernadou, Jean; Meunier, Bernard
CS Chemistry Department, University of Guelph, Ontario, ON, N1G 2W1, Can.
SO Inorganic Chemistry (1997), 36(16), 3488-3492
CODEN: INOCAF; ISSN: 0020-1669
PB American Chemical Society
DT Journal
LA English
OS CASREACT 127:121428

=> d abs 2

L16 ANSWER 2 OF 2 CAPLUS COPYRIGHT 2006 ACS on STN
AB The persulfate oxidation of 4-isopropylbenzoic acid performed in H218O and catalyzed by a water-soluble metalloporphyrin indicated that half of the oxygen atoms incorporated in 4-(1-hydroxy-1-methylethyl)benzoic acid, the primary hydroxylation product, came from water. A redox tautomerism of the active high-valent hydroxo-metal-oxo porphyrin intermediate coupled with an oxygen rebound mechanism explained this result. Under similar conditions, ketoprofen was directly oxidized to 3-benzoylacetophenone, via at least two different reaction pathways. Trapping of radical intermediates by mol. oxygen competed with the oxygen rebound mechanism.

=> s amidation and rhodium porphyrin
27606 AMIDATION
77 AMIDATIONS
27627 AMIDATION
67191 RHODIUM
31 RHODIUMS
67192 RHODIUM
(RHODIUM OR RHODIUMS)
34445 PORPHYRIN
24064 PORPHYRINS
40529 PORPHYRIN
(PORPHYRIN OR PORPHYRINS)
169 RHODIUM PORPHYRIN
(RHODIUM(W) PORPHYRIN)
0 AMIDATION AND RHODIUM PORPHYRIN

L17

=> d his

(FILE 'HOME' ENTERED AT 07:58:26 ON 17 JAN 2006)

FILE 'CAPLUS' ENTERED AT 08:05:25 ON 17 JAN 2006

L1 169 S RHODIUM PORPHYRIN
L2 5 S L1 AND OXIDATION CATALYST
L3 164 S L1 NOT L2
L4 0 S L1 AND SUPERIOR AND CONVENTIONAL
L5 0 S L1 AND SUPERIOR
L6 0 S L1 AND ADVANTAGEOUS
L7 13 S L1 AND SULF?
L8 4 S SULFAMIDAT? AND PORPH?
L9 1 S PORPHYRIN AND SUPERIOR AND CONVENTIONAL AND CATALY?
L10 121 S METALLOPORPHYRIN CATALYSTS
L11 3 S L10 AND RHODIUM
L12 121 S L10 NOT L11
L13 118 S L10 NOT L11
L14 8 S L13 AND (SUPERIOR OR ADVANTAGEOUS OR BETTER)

L15 31 S C-H BOND OXIDATION
L16 2 S L15 AND PORPH?
L17 0 S AMIDATION AND RHODIUM PORPHYRIN

=> s l1 and c-h bond oxidation
3401172 C
2609279 H
523944 BOND
260073 BONDS
673238 BOND
(BOND OR BONDS)
425964 OXIDATION
4807 OXIDATIONS
427215 OXIDATION
(OXIDATION OR OXIDATIONS)
731786 OXIDN
9206 OXIDNS
733707 OXIDN
(OXIDN OR OXIDNS)
867044 OXIDATION
(OXIDATION OR OXIDN)
31 C-H BOND OXIDATION
(C(W)H(W)BOND(W)OXIDATION)
L18 0 L1 AND C-H BOND OXIDATION

=> s cyclic sulfamida?
298092 CYCLIC
336 CYCLICS
298223 CYCLIC
(CYCLIC OR CYCLICS)
207 SULFAMIDA?
43 CYCLIC SULFAMIDA?
(CYCLIC(W)SULFAMIDA?)

L19

=> s l19 and porphyrin
34445 PORPHYRIN
24064 PORPHYRINS
40529 PORPHYRIN
(PORPHYRIN OR PORPHYRINS)
4 L19 AND PORPHYRIN

L20

=> d 1-4

L20 ANSWER 1 OF 4 CAPLUS COPYRIGHT 2006 ACS on STN
AN 2004:1019826 CAPLUS
DN 142:6560
TI Intramolecular amidation of sulfamates 1,2,3-oxathiazolidine-2,2-dione and tetrahydro-1,2,3-oxathiazine-2,2-dione derivatives catalyzed by metalloporphyrins
IN Che, Chi-Ming; Liang, Jiang-Lin
PA Hong Kong
SO U.S. Pat. Appl. Publ., 12 pp., Cont.-in-part of U.S. Ser. No. 202,581.
CODEN: USXXCO
DT Patent
LA English
FAN.CNT 2

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
PI US 2004236099	A1	20041125	US 2004-790810	20040303
US 2004019204	A1	20040129	US 2002-202581	20020723
PRAI US 2002-202581	A2	20020723		
OS MARPAT 142:6560				

L20 ANSWER 2 OF 4 CAPLUS COPYRIGHT 2006 ACS on STN
AN 2004:363764 CAPLUS

DN 141:123207
 TI Intramolecular C-N Bond Formation Reactions Catalyzed by Ruthenium
Porphyryns: Amidation of Sulfamate Esters and Aziridination of
 Unsaturated Sulfonamides
 AU Liang, Jiang-Lin; Yuan, Shi-Xue; Huang, Jie-Sheng; Che, Chi-Ming
 CS Department of Chemistry and Open Laboratory of Chemical Biology, Institute
 of Molecular Technology for Drug Discovery and Synthesis, University of
 Hong Kong, Hong Kong
 SO Journal of Organic Chemistry (2004), 69(11), 3610-3619
 CODEN: JOCEAH; ISSN: 0022-3263
 PB American Chemical Society
 DT Journal
 LA English
 OS CASREACT 141:123207
 RE.CNT 59 THERE ARE 59 CITED REFERENCES AVAILABLE FOR THIS RECORD
 ALL CITATIONS AVAILABLE IN THE RE FORMAT

L20 ANSWER 3 OF 4 CAPLUS COPYRIGHT 2006 ACS on STN
 AN 2004:76042 CAPLUS
 DN 140:128437
 TI Preparation of **cyclic sulfamides** by
 metalloporphyrin-catalyzed oxidative intramolecular amidation of sulfamate
 esters.
 IN Che, Chiming; Liang, Jianglin
 PA The University of Hong Kong, Peop. Rep. China
 SO Eur. Pat. Appl., 16 pp.
 CODEN: EPXXDW
 DT Patent
 LA English
 FAN.CNT 2

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
PI EP 1384718	A1	20040128	EP 2003-102223	20030718
R: AT, BE, CH, DE, DK, ES, FR, GB, GR, IT, LI, LU, NL, SE, MC, PT, IE, SI, LT, LV, FI, RO, MK, CY, AL, TR, BG, CZ, EE, HU, SK,				
US 2004019204	A1	20040129	US 2002-202581	20020723
US 2002-202581	A	20020723		
PRAI US 2002-202581				
OS CASREACT 140:128437				
RE.CNT 2				
THERE ARE 2 CITED REFERENCES AVAILABLE FOR THIS RECORD				
ALL CITATIONS AVAILABLE IN THE RE FORMAT				

L20 ANSWER 4 OF 4 CAPLUS COPYRIGHT 2006 ACS on STN
 AN 2002:756471 CAPLUS
 DN 138:187747
 TI Highly diastereo- and enantioselective intramolecular amidation of
 saturated C-H bonds catalyzed by ruthenium **porphyryns**
 AU Liang, Jiang-Lin; Yuan, Shi-Xue; Huang, Jie-Sheng; Yu, Wing-Yiu; Che,
 Chi-Ming
 CS Department of Chemistry and Open Laboratory of Chemical Biology of the
 Institute of Molecular Technology for Drug Discovery and Synthesis, The
 University of Hong Kong, Hong Kong
 SO Angewandte Chemie, International Edition (2002), 41(18), 3465-3468
 CODEN: ACIEF5; ISSN: 1433-7851
 PB Wiley-VCH Verlag GmbH & Co. KGaA
 DT Journal
 LA English
 OS CASREACT 138:187747
 RE.CNT 38 THERE ARE 38 CITED REFERENCES AVAILABLE FOR THIS RECORD
 ALL CITATIONS AVAILABLE IN THE RE FORMAT

=> s 119 not 110
 L21 43 L19 NOT L10
 => s 119 not 120

L22 39 L19 NOT L20
 => d 1-39

L22 ANSWER 1 OF 39 CAPLUS COPYRIGHT 2006 ACS on STN
 AN 2005:1245779 CAPLUS
 TI **Cyclic sulfamides** as lactam precursors. An efficient
 asymmetric synthesis of (-)-aphanorphine
 AU Bower, John F.; Szeto, Peter; Gallagher, Timothy
 CS School of Chemistry, University of Bristol, Bristol, BS8 1TS, UK
 SO Chemical Communications (Cambridge, United Kingdom) (2005), (46),
 5793-5795
 CODEN: CHCOFS; ISSN: 1359-7345
 PB Royal Society of Chemistry
 DT Journal
 LA English
 RE.CNT 31 THERE ARE 31 CITED REFERENCES AVAILABLE FOR THIS RECORD
 ALL CITATIONS AVAILABLE IN THE RE FORMAT

L22 ANSWER 2 OF 39 CAPLUS COPYRIGHT 2006 ACS on STN
 AN 2005:1108384 CAPLUS
 DN 144:23117
 TI Homoserine-derived **cyclic sulfamide** as chiral adduct
 for the diversity-oriented synthesis of lactam-bridged dipeptides
 AU Galaud, Fabrice; Lubell, William D.
 CS Departement de Chimie, Universite de Montreal, Montreal, QC, H3C 3J7, Can.
 SO Biopolymers (2005), 80(5), 665-674
 CODEN: BIPMAA; ISSN: 0006-3525
 PB John Wiley & Sons, Inc.
 DT Journal
 LA English
 RE.CNT 32 THERE ARE 32 CITED REFERENCES AVAILABLE FOR THIS RECORD
 ALL CITATIONS AVAILABLE IN THE RE FORMAT

L22 ANSWER 3 OF 39 CAPLUS COPYRIGHT 2006 ACS on STN
 AN 2005:508619 CAPLUS
 DN 143:194212
 TI A Convenient Enantioselective Synthesis of (S)- α -
 Trifluoromethylisoserine
 AU Avenzo, Alberto; Busto, Jesus H.; Jimenez-Oses, Gonzalo; Peregrina, Jesus
 M.
 CS Departamento de Quimica, Universidad de La Rioja, Logrono, E-26006, Spain
 SO Journal of Organic Chemistry (2005), 70(14), 5721-5724
 CODEN: JOCEAH; ISSN: 0022-3263
 PB American Chemical Society
 DT Journal
 LA English
 RE.CNT 52 THERE ARE 52 CITED REFERENCES AVAILABLE FOR THIS RECORD
 ALL CITATIONS AVAILABLE IN THE RE FORMAT

L22 ANSWER 4 OF 39 CAPLUS COPYRIGHT 2006 ACS on STN
 AN 2005:378921 CAPLUS
 DN 143:60036
 TI Use of optically active cyclic diethyl sulfamide 2-phosphonates as
 chiral synthons for the synthesis of β -substituted α -amino
 phosphonates
 AU Dolence, E. Kurt; Mayer, Gabriele; Kelly, Brenda D.
 CS School of Pharmacy, University of Wyoming, Laramie, WY, 82071-3375, USA
 SO Tetrahedron: Asymmetry (2005), 16(9), 1583-1594
 CODEN: TASYE3; ISSN: 0957-4166
 PB Elsevier B.V.
 DT Journal
 LA English
 OS CASREACT 143:60036
 RE.CNT 46 THERE ARE 46 CITED REFERENCES AVAILABLE FOR THIS RECORD

ALL CITATIONS AVAILABLE IN THE RE FORMAT

L22 ANSWER 5 OF 39 CAPLUS COPYRIGHT 2006 ACS on STN
AN 2005:278422 CAPLUS
DN 142:430501
TI SN2 vs E2 on quaternary centers. An easy approach to chiral
AU 02,2-amino acids from **cyclic sulfamidates**
Peregrina, Jesus
CS Departamento de Quimica, Grupo de Sintesis Quimica de La Rioja,
Universidad de La Rioja, Logrono, Spain
SO Phosphorus, Sulfur and Silicon and the Related Elements (2005), 180(5-6),
1459-1460
CODEN: PSSLEC; ISSN: 1042-6507
PB Taylor & Francis, Inc.
DT Journal; General Review
LA English
RE.CNT 4 THERE ARE 4 CITED REFERENCES AVAILABLE FOR THIS RECORD
ALL CITATIONS AVAILABLE IN THE RE FORMAT

L22 ANSWER 6 OF 39 CAPLUS COPYRIGHT 2006 ACS on STN
AN 2005:199483 CAPLUS
DN 142:430080
TI 3-(2,5-dihydro-1H-pyrrol-2-ylmethoxy)pyridines: synthesis and analgesic
activity
AU Barzenok, Ivan L.; Jonsson, Emma; Claesson, Alf
CS Syntagon AB, Soedertaelje, SE-15102, Swed.
SO Biorganic & Medicinal Chemistry Letters (2005), 15(6), 1637-1640
CODEN: BMCLEB; ISSN: 0960-894X
PB Elsevier B.V.
DT Journal
LA English
OS CASREACT 142:430080
RE.CNT 20 THERE ARE 20 CITED REFERENCES AVAILABLE FOR THIS RECORD
ALL CITATIONS AVAILABLE IN THE RE FORMAT

L22 ANSWER 7 OF 39 CAPLUS COPYRIGHT 2006 ACS on STN
AN 2004:978758 CAPLUS
DN 142:113854
TI **Cyclic Sulfamidates** as Vehicles for the Synthesis of
Substituted Lactams
AU Bower, John F.; Svenda, Jakub; Williams, Andrew J.; Charmant, Jonathan P.
H.; Lawrence, Ron M.; Szeto, Peter; Gallagher, Timothy
CS School of Chemistry, University of Bristol, Bristol, BS8 1TS, UK
SO Organic Letters (2004), 6(25), 4727-4730
CODEN: ORLEF7; ISSN: 1523-7060
PB American Chemical Society
DT Journal
LA English
OS CASREACT 142:113854
RE.CNT 28 THERE ARE 28 CITED REFERENCES AVAILABLE FOR THIS RECORD
ALL CITATIONS AVAILABLE IN THE RE FORMAT

L22 ANSWER 8 OF 39 CAPLUS COPYRIGHT 2006 ACS on STN
AN 2004:815303 CAPLUS
DN 142:23441
TI An Efficient Preparation of Isosteric Phosphonate Analogues of
Spingolipids by Opening of Oxirane and **Cyclic
Sulfamidate** Intermediates with α -Lithiated Alkylphosphonic
Esters
AU Sun, Chao; Bittman, Robert
CS Department of Chemistry and Biochemistry, Queens College, The City
University of New York, Flushing, NY, 11367-1597, USA
SO Journal of Organic Chemistry (2004), 69(12), 7694-7699
CODEN: JOCEAH; ISSN: 0022-3263

PB American Chemical Society

DT Journal
LA English
OS CASREACT 142:23441
RE.CNT 31 THERE ARE 31 CITED REFERENCES AVAILABLE FOR THIS RECORD
ALL CITATIONS AVAILABLE IN THE RE FORMAT

L22 ANSWER 9 OF 39 CAPLUS COPYRIGHT 2006 ACS on STN
AN 2004:285459 CAPLUS
DN 141:54588
TI SN2 vs. E2 on quaternary centers: an application to the synthesis of
enantiotopure β 2,2-amino acids
AU Avenzoza, Alberto; Busto, Jesus H.; Corzana, Francisco; Jimenez-Oses,
Gonzalo; Peregrina, Jesus M.
CS Departamento de Quimica, Grupo de Sintesis Quimica de La Rioja,
U.A.-C.S.I.C., Universidad de La Rioja, Logrono, E-26006, Spain
SO Chemical Communications (Cambridge, United Kingdom) (2004), (8), 980-981
CODEN: CHCOFS; ISSN: 1359-7345
PB Royal Society of Chemistry
DT Journal
LA English
OS CASREACT 141:54588
RE.CNT 21 THERE ARE 21 CITED REFERENCES AVAILABLE FOR THIS RECORD
ALL CITATIONS AVAILABLE IN THE RE FORMAT

L22 ANSWER 10 OF 39 CAPLUS COPYRIGHT 2006 ACS on STN
AN 2003:633616 CAPLUS
DN 139:197488
TI Regio- and stereoselective synthesis of sulfamidates from 1,2-diols using
Burgess-type reagents and their conversion to β -amino alcohols
IN Nicolaou, Kyriacos C.; Snyder, Scott A.; Huang, Xianhai
PA The Scripps Research Institute, USA
SO PCT Int. Appl., 26 pp.
CODEN: PIXXD2
DT Patent
LA English
FAN.CNT 1

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
WO 2003066549	A2	20030814	WO 2003-US3788	20030207
WO 2003066549	A3	20040325		
W:	AE, AG, AL, AM, AT, AU, AZ, BA, BB, BG, BR, BY, BZ, CA, CH, CN, CO, CR, CU, CZ, DE, DK, DM, DZ, EC, EE, ES, FI, GB, GD, GE, GH, GM, GR, HU, ID, IL, IN, IS, JP, KE, KG, KP, KZ, LC, LK, LR, LS, LT, LU, LV, MA, MD, MG, MK, MN, MW, MX, MY, MZ, NO, NZ, OM, PA, PL, PT, RO, RU, SC, SD, SE, SG, SK, SL, TJ, TM, TN, TT, TZ, UA, UG, US, UZ, VC, VN, YU, ZA, ZM, ZW			
RM:	GH, GM, KE, LS, MW, MZ, SD, SL, SZ, TZ, UG, ZM, ZW, AM, AZ, BY, FI, FR, GB, GR, HU, IE, IT, LU, MC, NL, PT, SE, SI, SK, TR, BF, BJ, CF, CG, CI, CM, GN, GU, GW, ML, MR, NE, SN, TD, TG			
PRAI US 2002-355068P	P	20020207		
OS CASREACT 139:197488; MARPAT 139:197488				

L22 ANSWER 11 OF 39 CAPLUS COPYRIGHT 2006 ACS on STN
AN 2003:590187 CAPLUS
DN 140:77120
TI New application of Burgess reagent in its reaction with epoxides
AU Rinne, Uwe; Adams, David R.; dos Santos, Maria L.; Abboud, Khalil A.; Hudlicky, Tomas
CS Department of Chemistry, University of Florida, Gainesville, FL, 32611-7200, USA
SO Synlett (2003), (9), 1247-1252
CODEN: SYNLES; ISSN: 0936-5214
PB Georg Thieme Verlag

DT Journal
 OS CASREACT 140-77120
 RE.CNT 22 THERE ARE 22 CITED REFERENCES AVAILABLE FOR THIS RECORD
 ALL CITATIONS AVAILABLE IN THE RE FORMAT

L22 ANSWER 12 OF 39 CAPLUS COPYRIGHT 2006 ACS on STN
 AN 2003:573461 CAPLUS
 DN 139:381652
 TI Synthesis of the spermidine alkaloids (-)-(2R,3R)- and
 (-)-(2R,3S)-3-hydroxycellamine: Macrocyclization with oxitane-ring
 opening and inversion via **cyclic sulfamides**
 Khanjin, Nikolai A.; Hesse, Manfred
 CS Organisch-chemisches Institut der Universitaet Zuerich, Zurich, CH-8057,
 Switz.
 SO Helvetica Chimica Acta (2003), 86(6), 2028-2057
 PB Verlag Helvetica Chimica Acta
 DT Journal
 LA English
 OS CASREACT 139:381652
 RE.CNT 36 THERE ARE 36 CITED REFERENCES AVAILABLE FOR THIS RECORD
 ALL CITATIONS AVAILABLE IN THE RE FORMAT

L22 ANSWER 13 OF 39 CAPLUS COPYRIGHT 2006 ACS on STN
 AN 2003:573522 CAPLUS
 TI Synthesis of F18 radiolabeled 3-aminoxy-2-fluoropropanamine, an ornithine
 decarboxylase inhibitor, for positron emission tomography tumor imaging
 AU Murali, Dhanabalan; DeJesus, Onofre T.
 CS Medical School, Department of Medical Physics, University of
 Wisconsin-Madison, Madison, WI, USA
 SO Abstracts, 35th Great Lakes Regional Meeting of the American Chemical
 Society, Chicago, IL, United States, May 31-June 2 (2003), 149 Publisher:
 American Chemical Society, Washington, D. C.
 CODEN: 69ERCS
 DT Conference: Meeting Abstract
 LA English

L22 ANSWER 14 OF 39 CAPLUS COPYRIGHT 2006 ACS on STN
 AN 2003:173445 CAPLUS
 DN 138:221708
 TI Preparation of antibacterial agents based upon oxanion binding
 IN Cooper, Stephen R.; Yager, Kraig M.
 PA Quorax Pharmaceuticals, Inc., USA
 SO PCR Int. Appl., 29 pp.
 CODEN: FIXXD2

DT Patent
 LA English
 FAN.CNT 1

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
PI WO 2003018029	A1	20030306	WO 2002-US27154	20020822
W:	AE, AG, AL, AM, AT, AU, AZ, BA, BB, BG, BR, BY, BZ, CA, CH, CN, CO, CU, CZ, DE, DK, DM, DZ, EC, EE, EF, ES, FI, FL, GB, GE, GR, GM, HK, HU, ID, IL, IN, IS, JP, KE, KG, KP, KR, KZ, LC, LK, LR, LS, LT, LV, MA, MD, ME, MK, MM, MW, MX, MY, NZ, OM, PH, PL, PT, RO, RU, SD, SE, SG, SI, SK, SL, TJ, TM, TR, TT, TZ, UA, UG, UZ, VN, YU, ZA, ZM, ZW, AM, AZ, BY, KG			
RM:	GH, GM, KE, LS, MW, MZ, SD, SL, SZ, TZ, UG, ZM, ZW, AT, BE, BG, CH, CY, CZ, DE, DK, EE, FI, FR, GB, GR, IE, IT, LU, MC, NL, PT, SE, SK, TR, BF, BJ, CF, CG, CI, CM, GN, GQ, GW, ML, MR, NE, SN, TD, TG			
CA 2455504	AA	20030306	CA 2002-2455504	20020822
US 2003105062	A1	20030605	US 2002-227327	20020822

US 6737415 B2 20040518 EP 2002-759457 20020822
 EP 1418923 A1 20040519 EP 2002-759457 20020822
 R: AT, BE, CH, DE, DK, ES, FR, GB, GR, IT, LI, LU, NL, SE, MC, PT,
 IE, SI, LT, LV, FI, RO, MK, CY, AL, TR, BG, CZ, EE, SK
 JP 2005504777 T2 20050217 JP 2003-52547 20020822
 US 2004152669 A1 20040805 US 2003-67670 20031001
 PRAI US 2001-314683P P 20010824
 US 2002-227327 A3 20020822
 WO 2002-US27154 W 20020822
 OS CASREACT 138:221708; MARPAT 138:221708
 RE.CNT 6 THERE ARE 6 CITED REFERENCES AVAILABLE FOR THIS RECORD
 ALL CITATIONS AVAILABLE IN THE RE FORMAT

L22 ANSWER 15 OF 39 CAPLUS COPYRIGHT 2006 ACS on STN
 AN 2003:135796 CAPLUS
 DN 138:304244
 TI 1,2-Cyclic Sulfamides as Versatile Precursors to
 Thiomorpholines and Piperazines
 AU Williams, Andrew J.; Chakthong, Suda; Gray, Diane; Lawrence, Ron M.;
 Gallagher, Timothy
 CS School of Chemistry, University of Bristol, Bristol, BS8 ITS, UK
 SO Organic Letters (2003), 5(6), 811-814
 CODEN: ORLEF7; ISSN: 1523-7060
 PB American Chemical Society
 DT Journal
 LA English
 OS CASREACT 138:304244
 RE.CNT 48 THERE ARE 48 CITED REFERENCES AVAILABLE FOR THIS RECORD
 ALL CITATIONS AVAILABLE IN THE RE FORMAT

L22 ANSWER 16 OF 39 CAPLUS COPYRIGHT 2006 ACS on STN
 AN 2002:488378 CAPLUS
 DN 137:201271
 TI New Routes to N-Alkylated Cyclic Sulfamides
 AU Posakony, Jeffrey J.; Grierson, John R.; Tewson, Timothy J.
 CS PET Imaging Center, Department of Radiology, University of Iowa, Iowa
 City, IA, 52242-1007, USA
 SO Journal of Organic Chemistry (2002), 67(15), 5164-5169
 CODEN: JOCEAH; ISSN: 0022-3263
 PB American Chemical Society
 DT Journal
 LA English
 OS CASREACT 137:201271
 RE.CNT 20 THERE ARE 20 CITED REFERENCES AVAILABLE FOR THIS RECORD
 ALL CITATIONS AVAILABLE IN THE RE FORMAT

L22 ANSWER 17 OF 39 CAPLUS COPYRIGHT 2006 ACS on STN
 AN 2002:414659 CAPLUS
 DN 137:262753
 TI Substitution reactions of hindered cyclic sulfamides
 AU Posakony, Jeffrey J.; Tewson, Timothy J.
 CS Department of Radiology Imaging Research Laboratory, University of
 Washington, Seattle, WA, 98195, USA
 SO Synthesis (2002), (7), 859-864
 CODEN: SINTBF; ISSN: 0039-7881
 PB Georg Thieme Verlag
 DT Journal
 LA English
 OS CASREACT 137:262753
 RE.CNT 15 THERE ARE 15 CITED REFERENCES AVAILABLE FOR THIS RECORD
 ALL CITATIONS AVAILABLE IN THE RE FORMAT

L22 ANSWER 18 OF 39 CAPLUS COPYRIGHT 2006 ACS on STN
 AN 2002:370219 CAPLUS
 DN 137:232363

TI Fluoroamines via chiral **cyclic sulfamidates**
 AU Posakony, Jeffrey J.; Tewson, Timothy J.
 CS Department of Radiology Imaging Research Laboratory, University of Washington, Seattle, WA, 98195, USA
 SO Synthesis (2002), (6), 766-770
 CODEN: SYNTBF; ISSN: 0039-7881
 PB Georg Thieme Verlag
 DT Journal
 LA English
 OS CASREACT 137:232363
 RE.CNT 22 THERE ARE 22 CITED REFERENCES AVAILABLE FOR THIS RECORD
 ALL CITATIONS AVAILABLE IN THE RE FORMAT

L22 ANSWER 19 OF 39 CAPLUS COPYRIGHT 2006 ACS on STN
 AN 2002:312318 CAPLUS
 DN 137:43587
 TI Radiolabeled Amino Acids for Tumor Imaging with PET: Radiosynthesis and Biological Evaluation of 2-Amino-3-[[18F]fluoro-2-methylpropanoic Acid and 3-[[18F]fluoro-2-methyl-2-(methylamino)propanoic Acid
 AU McConathy, Jonathan; Martarello, Laurent; Malveaux, Eugene J.; Camp, Vernon M.; Simpson, Nicholas E.; Simpson, Chial P.; Bowers, Geoffrey D.; Olson, Jeffrey J.; Goodman, Mark M.
 CS Department of Radiology and Department of Neurosurgery, Emory University Hospital School of Medicine, Atlanta, GA, 30322, USA
 SO Journal of Medicinal Chemistry (2002), 45(11), 2240-2249
 CODEN: JMCMAR; ISSN: 0022-2623
 PB American Chemical Society
 DT Journal
 LA English
 OS CASREACT 137:232363
 RE.CNT 36 THERE ARE 36 CITED REFERENCES AVAILABLE FOR THIS RECORD
 ALL CITATIONS AVAILABLE IN THE RE FORMAT

L22 ANSWER 20 OF 39 CAPLUS COPYRIGHT 2006 ACS on STN
 AN 2002:242227 CAPLUS
 DN 137:63015
 TI A novel regio- and stereoselective synthesis of sulfamidates from 1,2-diols using Burgess and related reagents: a facile entry into β -amino alcohols
 AU Nicolaou, K. C.; Huang, Xianhai; Snyder, Scott A.; Rao, Paraselli Bheema; Bella, Marco; Reddy, Mali V.
 CS Department of Chemistry and The Skaggs Institute for Chemical Biology, The Scripps Research Institute, La Jolla, CA, 92037, USA
 SO Angewandte Chemie, International Edition (2002), 41(5), 834-838
 CODEN: ACHIEF; ISSN: 1433-7851
 PB Wiley-VCH Verlag GmbH
 DT Journal
 LA English
 OS CASREACT 137:63015
 RE.CNT 63 THERE ARE 63 CITED REFERENCES AVAILABLE FOR THIS RECORD
 ALL CITATIONS AVAILABLE IN THE RE FORMAT

L22 ANSWER 21 OF 39 CAPLUS COPYRIGHT 2006 ACS on STN
 AN 2002:144215 CAPLUS
 DN 136:340983
 TI Application of Serine- and Threonine-Derived **Cyclic Sulfamidates** for the Preparation of S-Linked Glycosyl Amino Acids in Solution- and Solid-Phase Peptide Synthesis
 AU Cohen, Scott B.; Halcomb, Randall L.
 CS Department of Chemistry and Biochemistry, University of Colorado, Boulder, CO, 80309-0215, USA
 SO Journal of the American Chemical Society (2002), 124(11), 2534-2543
 CODEN: JACSAT; ISSN: 0002-7863
 PB American Chemical Society
 DT Journal
 LA English

OS CASREACT 136:340983
 RE.CNT 34 THERE ARE 34 CITED REFERENCES AVAILABLE FOR THIS RECORD
 ALL CITATIONS AVAILABLE IN THE RE FORMAT

L22 ANSWER 22 OF 39 CAPLUS COPYRIGHT 2006 ACS on STN
 AN 2002:136872 CAPLUS
 DN 137:185078
 TI New carbon-carbon bond forming reactions of cyclic sulfate esters and **cyclic sulfamidates**
 AU Pound, Melanie K.; Davies, Darren L.; Pilkington, Melanie; de Pina Vaz Sousa, Maria M.; Wallis, John D.
 CS Department of Chemistry and Physics, The Nottingham Trent University, Nottingham, NG11 8NS, UK
 SO Tetrahedron Letters (2002), 43(10), 1915-1918
 CODEN: TETLEA; ISSN: 0040-4039
 PB Elsevier Science Ltd.
 DT Journal
 LA English
 OS CASREACT 137:185078
 RE.CNT 42 THERE ARE 42 CITED REFERENCES AVAILABLE FOR THIS RECORD
 ALL CITATIONS AVAILABLE IN THE RE FORMAT

L22 ANSWER 23 OF 39 CAPLUS COPYRIGHT 2006 ACS on STN
 AN 2001:614593 CAPLUS
 DN 135:344718
 TI N-(9-Phenylfluorenyl)homoserine-Derived **Cyclic Sulfamidates**: Novel Chiral Adducts for the Synthesis of Enantiopure γ -Substituted α -Amino Acids
 AU Atfani, Mohamed; Wei, Ian; Lubell, William D.
 CS Department de Chimie, Université de Montréal, Montréal, QC, H3C 3J7, Can.
 SO Organic Letters (2001), 3(19), 2965-2968
 CODEN: ORLEF7; ISSN: 1523-7060
 PB American Chemical Society
 DT Journal
 LA English
 OS CASREACT 135:344718
 RE.CNT 26 THERE ARE 26 CITED REFERENCES AVAILABLE FOR THIS RECORD
 ALL CITATIONS AVAILABLE IN THE RE FORMAT

L22 ANSWER 24 OF 39 CAPLUS COPYRIGHT 2006 ACS on STN
 AN 2001:153423 CAPLUS
 DN 134:296067
 TI Scope and limitations in the use of N-(Ph)serine-derived **cyclic sulfamidates** for amino acid synthesis
 AU Wei, Ian; Lubell, William D.
 CS Department de chimie, Université de Montréal, Montréal, QC, H3C 3J7, Can.
 SO Canadian Journal of Chemistry (2001), 79(1), 94-104
 CODEN: CJCCHG; ISSN: 0008-4042
 PB National Research Council of Canada
 DT Journal
 LA English
 OS CASREACT 134:296067
 RE.CNT 35 THERE ARE 35 CITED REFERENCES AVAILABLE FOR THIS RECORD
 ALL CITATIONS AVAILABLE IN THE RE FORMAT

L22 ANSWER 25 OF 39 CAPLUS COPYRIGHT 2006 ACS on STN
 AN 2001:19603 CAPLUS
 DN 134:208075
 TI Synthesis of S-Linked Glycosyl Amino Acids in Aqueous Solution with Unprotected Carbohydrates
 AU Cohen, Scott B.; Halcomb, Randall L.
 CS Department of Chemistry and Biochemistry, University of Colorado, Boulder, CO, 80309-0215, USA
 SO Organic Letters (2001), 3(3), 405-407
 CODEN: ORLEF7; ISSN: 1523-7060

PB American Chemical Society

DT Journal
LA English

OS CASREACT 134:208075

RE.CNT 24 THERE ARE 24 CITED REFERENCES AVAILABLE FOR THIS RECORD
ALL CITATIONS AVAILABLE IN THE RE FORMAT

L22 ANSWER 26 OF 39 CAPLUS COPYRIGHT 2006 ACS on STN
AN 2000:523459 CAPLUS

DN 133:267096

TI Racemization in the Use of N-(9-(9-Phenylfluorenyl))serine-Derived

Cyclic Sulfamides in the Synthesis of δ -Keto

α -Amino Carboxylates and Prolines

Wei, Ian; Lubell, William D.

CS D partement de Chimie, Universit  de Montr al, Montr al, QC, H3C 3J7, Can.

SO Organic Letters (2000), 2(17), 2595-2598

CODEN: ORLEF7; ISSN: 1523-7060

PB American Chemical Society

DT Journal

LA English

RE.CNT 24 THERE ARE 24 CITED REFERENCES AVAILABLE FOR THIS RECORD
ALL CITATIONS AVAILABLE IN THE RE FORMAT

L22 ANSWER 27 OF 39 CAPLUS COPYRIGHT 2006 ACS on STN
AN 1999:672133 CAPLUS

DN 132:49950

TI A short synthesis of chiral petaza-macrocycles through opening of

cyclic sulfamides

Kim, B. Moon; So, Soon Mog

CS Department of Chemistry and Center for Molecular Catalysis, College of

Natural Sciences, Seoul National University, Seoul, 151-742, S. Korea

SO Tetrahedron Letters (1999), 40(43), 7687-7690

CODEN: TELEAV; ISSN: 0040-4039

PB Elsevier Science Ltd.

DT Journal

LA English

RE.CNT 22 THERE ARE 22 CITED REFERENCES AVAILABLE FOR THIS RECORD
ALL CITATIONS AVAILABLE IN THE RE FORMAT

L22 ANSWER 28 OF 39 CAPLUS COPYRIGHT 2006 ACS on STN
AN 1999:333921 CAPLUS

DN 131:170602

TI Generation of unnatural α,α -disubstituted amino acid

derivatives from **cyclic sulfamides**

Boulton, Lee F.; Stock, H. Thijs; R p y, Jennifer; Horwell, David C.

CS Parks-Davis Neuroscience Research Centre, Cambridge University, Cambridge,

CB2 2QB, UK

SO Journal of the Chemical Society, Perkin Transactions 1: Organic and

Bio-Organic Chemistry (1999), (11), 1421-1430

CODEN: JCPRB4; ISSN: 0300-922X

PB Royal Society of Chemistry

DT Journal

LA English

OS CASREACT 131:170602

RE.CNT 38 THERE ARE 38 CITED REFERENCES AVAILABLE FOR THIS RECORD
ALL CITATIONS AVAILABLE IN THE RE FORMAT

L22 ANSWER 29 OF 39 CAPLUS COPYRIGHT 2006 ACS on STN
AN 1999:320249 CAPLUS

DN 131:73355

TI Improved syntheses of fluorinated tertiary butylamines

Ok, Dong; Fisher, Michael H.; Ryvatt, Matthew J.; Mainke, Peter T.

CS Department of Basic Medicinal Chemistry, Merck Research Laboratories,

Rahway, NJ, 07065-0900, USA

SO Tetrahedron Letters (1999), 40(20), 3831-3834

CODEN: TELEAV; ISSN: 0040-4039

PB Elsevier Science Ltd.

DT Journal

LA English

RE.CNT 10 THERE ARE 10 CITED REFERENCES AVAILABLE FOR THIS RECORD
ALL CITATIONS AVAILABLE IN THE RE FORMAT

L22 ANSWER 30 OF 39 CAPLUS COPYRIGHT 2006 ACS on STN
AN 1998:454041 CAPLUS

DN 129:161178

TI Efficient hydrolysis of β -aminosulfamic acids using a Lewis acid and

a thiol for the synthesis of 2,3-diaminopropanoate derivatives

Kim, B. Moon; So, Soon Mog

CS Department of Chemistry and Center for Molecular Catalysis, Seoul National

University, Seoul 151-742, S. Korea

SO Tetrahedron Letters (1998), 39(30), 5381-5384

CODEN: TELEAV; ISSN: 0040-4039

PB Elsevier Science Ltd.

DT Journal

LA English

OS CASREACT 129:161178

RE.CNT 26 THERE ARE 26 CITED REFERENCES AVAILABLE FOR THIS RECORD
ALL CITATIONS AVAILABLE IN THE RE FORMAT

L22 ANSWER 31 OF 39 CAPLUS COPYRIGHT 2006 ACS on STN
AN 1998:208878 CAPLUS

DN 128:192852

TI Synthesis of a Thio-Analog of Lewis X by Regioselective Opening of

Cyclic Sulfamides

Aguil ra, Begona; Fernandez-Mayoralas, Alfonso

CS Instituto de Qu mica Org nica General, CSIC, Madrid, E-28006, Spain

SO Journal of Organic Chemistry (1998), 63(8), 2719-2723

CODEN: JOCEAH; ISSN: 0022-3263

PB American Chemical Society

DT Journal

LA English

RE.CNT 20 THERE ARE 20 CITED REFERENCES AVAILABLE FOR THIS RECORD
ALL CITATIONS AVAILABLE IN THE RE FORMAT

L22 ANSWER 32 OF 39 CAPLUS COPYRIGHT 2006 ACS on STN
AN 1997:271338 CAPLUS

DN 126:330758

TI Use of **cyclic sulfamides** derived from D-allosamine

in nucleophilic displacements: scope and limitations

Aguil ra, Begona; Fernandez-Mayoralas, Alfonso; Jaramillo, Carlos

CS Dep. Qu mica Org nica Biol gica, Inst. Qu mica Org nica, Madrid, 28006,

Spain

SO Tetrahedron (1997), 53(16), 5863-5876

CODEN: TETRA3; ISSN: 0040-4020

PB Elsevier

DT Journal

LA English

L22 ANSWER 33 OF 39 CAPLUS COPYRIGHT 2006 ACS on STN
AN 1996:154217 CAPLUS

DN 124:317654

TI Nucleophilic displacements on a **cyclic sulfamide**

derived from allosamine: application to the synthesis of

thiooligosaccharides

Aguil ra, Begona; Fernandez-Mayoralas, Alfonso

CS Grupo Carbohidratos, Instituto Qu mica Org nica, Madrid, 28006, Spain

SO Chemical Communications (Cambridge) (1996), (2), 127-28

CODEN: CHCOFS; ISSN: 1359-7345

PB Royal Society of Chemistry

DT Journal

LA English

L22 ANSWER 34 OF 39 CAPLUS COPYRIGHT 2006 ACS on STN
AN 1995:380747 CAPLUS
DN 122:182135

TI Fluorine for Hydroxy Substitution in Biogenic Amines: Asymmetric Synthesis and Biological Evaluation of Fluorine-18-Labeled β -Fluorophenylalkylamines as Model Systems

AU Michael R.; Wieland, Donald M.
AN 1991:143286 CAPLUS

CS Medical School, University of Michigan, Ann Arbor, MI, 48109-0552, USA
SO Journal of Medicinal Chemistry (1995), 38(5), 810-15
CODEN: JMCWAR; ISSN: 0022-2623

PB American Chemical Society
DT Journal
LA English

L22 ANSWER 35 OF 39 CAPLUS COPYRIGHT 2006 ACS on STN
AN 1994:591879 CAPLUS
DN 121:191879

TI Methyl DL-3-benzyl-2,2-dioxo-1,2,3-oxathiazolidine-4-carboxylate - an intermediate for amino acid synthesis

AU Gritsonie, Penny; Pilkington, Melanie; Wallis, John D.
CS Chem. Lab., Univ. Kent, Canterbury, CT2 7NH, UK
SO Acta Crystallographica, Section C: Crystal Structure Communications (1994), C50(5), 763-5
CODEN: ACSCEE; ISSN: 0108-2701

DT Journal
LA English

L22 ANSWER 36 OF 39 CAPLUS COPYRIGHT 2006 ACS on STN
AN 1994:579176 CAPLUS
DN 121:179176

TI Stereo- and regiochemical aspects of the Mitsunobu reaction in synthesis of chiral amino ether ligands for asymmetric reactions

AU Okuda, Manabu; Tomioka, Kiyoshi
CS Institute of Scientific and Industrial Research, Osaka University, Ibaraki, 567, Japan
SO Tetrahedron Letters (1994), 35(26), 4585-6
CODEN: TETLEA; ISSN: 0040-4039

DT Journal
LA English

OS CASREACT 121:179176

L22 ANSWER 37 OF 39 CAPLUS COPYRIGHT 2006 ACS on STN
AN 1994:299238 CAPLUS
DN 120:299238

TI Synthesis and stability of the **cyclic sulfamidate** of N-trityl-L-serine methyl ester

AU Pilkington, Melanie; Wallis, John D.
CS Chem. Lab., Univ. Kent, Canterbury, CT2 7NH, UK
SO Journal of the Chemical Society, Chemical Communications (1993), (24), 1857-8
CODEN: JCCCAT; ISSN: 0022-4936

DT Journal
LA English

OS CASREACT 120:299238

L22 ANSWER 38 OF 39 CAPLUS COPYRIGHT 2006 ACS on STN
AN 1991:164739 CAPLUS
DN 114:164739

TI **Cyclic sulfamidates**: new synthetic precursors for β -functionalised α -amino acids

AU Baldwin, Jack E.; Spivey, Alan C.; Schofield, Christopher J.
CS Dyson Perrins Lab., Oxford Cent. Mol. Sci., Oxford, OX1 3QI, UK

SO Tetrahedron: Asymmetry (1990), 1(12), 881-4
CODEN: TASYE3; ISSN: 0957-4166

DT Journal
LA English

OS CASREACT 114:164739

L22 ANSWER 39 OF 39 CAPLUS COPYRIGHT 2006 ACS on STN
AN 1991:143286 CAPLUS
DN 114:143286

TI The direct synthesis of the **cyclic sulfamidate** of (S)-prolinol: simultaneous N-protection and activation towards nucleophilic displacement of oxygen

AU Alker, David; Doyle, Kevin J.; Harwood, Laurence M.; McGregor, Andrew
CS Pfizer Cent. Res., Sandwich/Kent, CT13 9NJ, UK
SO Tetrahedron: Asymmetry (1990), 1(12), 877-80
CODEN: TASYE3; ISSN: 0957-4166

DT Journal
LA English

OS CASREACT 114:143286

=> s porphyrin and cataly? and superior and acetate

34445 PORPHYRIN
24064 PORPHYRINS
40529 PORPHYRIN
(PORPHYRIN OR PORPHYRINS)
1289814 CATALY?
144991 SUPERIOR
11 SUPERIORS
145001 SUPERIOR
(SUPERIOR OR SUPERIORS)
501339 ACETATE
27770 ACETATES
512670 ACETATE
(ACETATE OR ACETATES)

L23 1 PORPHYRIN AND CATALY? AND SUPERIOR AND ACETATE

=> d

L23 ANSWER 1 OF 1 CAPLUS COPYRIGHT 2006 ACS on STN
AN 1992:571098 CAPLUS
DN 117:171098

TI Epoxidation of olefin **catalysed** by metal **porphyrins** and polyethylene glycol

AU Xu, Zhenghui; Xi, Zuwei; Jiang, Ziqi
CS Dalian Inst. Chem. Phys., Chin. Acad. Sci., Dalian, 116012, Peop. Rep. China
SO Fenzi Cuihua (1992), 6(3), 213-19
CODEN: FECUEN; ISSN: 1001-3555

DT Journal
LA Chinese

=> d abs

L23 ANSWER 1 OF 1 CAPLUS COPYRIGHT 2006 ACS on STN
AB The phase transfer **catalysis** of PEG-X (X = 200, 400, 1000, 2000) in epoxidn. of olefins **catalysed** by metal **porphyrin** with NaOCl in CH₂Cl₂-H₂O biphasic system, a model for mimicking cytochrome P 450, was studied, and compared with that of Me(CH₂)₁₅N+Me₃Br⁻ as the PTC. The exptl. results showed that PEG-X as a PTC were **superior** to Me₃(CH₂)₁₅N+Me₃Br⁻ on the basis of their higher **catalytic** activity and anti-oxidation ability. By anchoring PEG-400 to the metal **porphyrin**, manganese tetra(p-hydrophenyl) **porphyrin** **acetate**, the **catalytic** activity and stability of the

metal **porphyrin catalyst** were greatly enhanced. The transfer of -OCl from the aqueous phase to the oil phase was also facilitated. Compared with the free PEG-400 as a PTC, the PEG-400 on the metal **porphyrin** showed the better transfer ability.

=> d his

(FILE 'HOME' ENTERED AT 07:58:26 ON 17 JAN 2006)

FILE 'CAPLUS' ENTERED AT 08:05:25 ON 17 JAN 2006

L1 169 S RHODIUM PORPHYRIN
L2 5 S L1 AND OXIDATION CATALYST
L3 164 S L1 NOT L2
L4 0 S L1 AND SUPERIOR AND CONVENTIONAL
L5 0 S L1 AND SUPERIOR
L6 0 S L1 AND ADVANTAGEOUS
L7 13 S L1 AND SULF?
L8 4 S SULFAMIDAT? AND PORPH?
L9 1 S PORPHYRIN AND SUPERIOR AND CONVENTIONAL AND CATALY?
L10 121 S METALLOPORPHYRIN CATALYSTS
L11 3 S L10 AND RHODIUM
L12 121 S L10 NOT L11
L13 118 S L10 NOT L11
L14 8 S L13 AND (SUPERIOR OR ADVANTAGEOUS OR BETTER)
L15 31 S C-H BOND OXIDATION
L16 2 S L15 AND PORPH?
L17 0 S AMIDATION AND RHODIUM PORPHYRIN
L18 0 S L1 AND C-H BOND OXIDATION
L19 43 S CYCLIC SULFAMIDA?
L20 4 S L19 AND PORPHYRIN
L21 43 S L19 NOT L10
L22 39 S L19 NOT L20
L23 1 S PORPHYRIN AND CATALY? AND SUPERIOR AND ACETATE

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425964 OXIDATION
4807 OXIDATIONS
427215 OXIDATION
(OXIDATION OR OXIDATIONS)
731786 OXIDN
9206 OXIDNS
733707 OXIDN
(OXIDN OR OXIDNS)
867044 OXIDATION
(OXIDATION OR OXIDN)
L24 22 L3 AND OXIDATION
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DOCUMENT TYPE:
LANGUAGE:

Report; General Review
Polish

AB A review. The main goal of the work presented in this report is an explanation of the mechanism of carbon dioxide (CO₂) reduction catalyzed by transition metal complexes with some selected macrocycles. The catalytic function of two electron exchange centers in the reduction of CO₂, an inner metal and a macrocyclic ring, was defined. **Rhodium porphyrins** (CIRhIIP) in alic. alkaline and slightly acidic solns. are reduced photochem. and radiolytically to RhIP- and to RhIIP states, resp. The photocatalytic formation of H₂ takes place in the system, but no catalytic activity of CIRhIIP towards CO₂ reduction was found. Iron porphyrins exhibit the catalytic reduction of CO₂. Iron porphyrins in organic solvents and water are reduced photochem. and radiolytically to the FeIP- state and further reduced forms. In solns. a decay of the FeIP- state is accelerated by H⁺ and CO₂ reactions with the FeO₂- state. The latter state is formed via disproportionation of the FeIP- state. These reactions lead to the formation of CO, HCOO- and H₂. Application of p-terphenyl (TP) as an addnl. photosensitizer increases by one order of magnitude the yield of CO and HCOO- formed during photolysis of CO₂ - saturated solns. containing iron and cobalt porphyrins. TP in a presence of triethylamine (TEA) undergoes photochem. to the radical anion TP^{•-}. The latter, species as a strong reductant, reduces subsequently metalloporphyrins to MOP₂- states. The MOP₂- state of a porphyrin is responsible for CO₂ reduction. Side reactions lead to the formation of H₂ and the hydrogenation of a porphyrin ring. Phthalocyanines (Pc), in comparison with porphyrins, are characterized by the more extended aromatic structure and they are more resistant for degradation. Cobalt and iron phthalocyanines are easily reduced to the MIPC^{•-}2- state. However, the latter state does not react with CO₂. The more reduced form, anion radical MIPC^{•-}2-, is responsible for CO₂ reduction that leads to the formation of CO and HCOO-. Phthalocyanines are less efficient reductors of CO₂ in comparison with porphyrins. Investigations of cobalt corins show, that these complexes are more efficient in the catalysis of CO₂ photoredn. in comparison with cobalt porphyrins. CO₂ is reduced by an intermediate CoO corin complex formed in one electron reduction of the CoI complex. Corroles having a smaller macrocyclic cavity than porphyrins and a more unsatd. character in comparison with corins, stabilize better a metal center at higher **oxidation** states in comparison with porphyrins. Because of that their MI **oxidation** state reacts with CO₂ and thus it becomes a precursor of CO and HCOO- formation, with the yields comparable with metalloporphyrin systems. Due to the fact, that side reactions cause a ring degradation, it was checked whether the metal ions released during the degradation process could also catalyze CO₂ reduction. It was found that FeI iron ions react with CO₂ to form an adduct, a direct precursor of CO. A protonated form of FeI is responsible for H₂ formation instead. A possibility of four-, six- and eight-electrons CO₂ reduction was studied in aqueous solns. containing CO₂ and CuII copper ions. This study was initiated by the observation of methane formation during electrochem. reduction of CO₂ on the copper electrode. It was established that a presence of CuI ions and a reduced form of CO₂-radical anion [•]CO₂-, is necessary for CO formation.

L40 ANSWER 2 OF 18 CAPLUS COPYRIGHT 2006 ACS on STN
ACCESSION NUMBER:
DOCUMENT NUMBER:

2003:485180 CAPLUS
139:187329

Reversible Electrochemical Generation of a Rhodium(II) Porphyrin: Thwarting Disproportionation with Weakly Coordinating Anions

AUTHOR(S):

Sun, Haoran; Xue, Peng; Nelson, Andrew P.; Redepenning, Jody; DiMaggio, Stephen G.; Department of Chemistry, University of Nebraska Research and Analysis, University of Nebraska, Lincoln, NE, 68588-0304, USA
CORPORATE SOURCE:
SOURCE:

Inorganic Chemistry (2003), 42(15), 4507-4509

CODEN: INOCAJ; ISSN: 0020-1669
American Chemical Society

PUBLISHER:
DOCUMENT TYPE:
LANGUAGE:

AB The authors report electrochem. generation of a stable Rh(II) porphyrin (RhII(F28TTP)) from a 4-coordinate Rh(I) precursor [RhI(F28TTP)]- dissolved in weakly coordinating electrolyte solns. This work provides the 1st example of an unambiguously reversible 1-electron electrochem. **oxidation** of a RhI(por), and demonstrates that electrochem. **oxidation** can be performed under conditions that are compatible with alkane activation. These studies begin to classify those media capable of supporting a stable RhII(por), and those that induce disproportionation. THERE ARE 21 CITED REFERENCES AVAILABLE FOR THIS REFERENCE COUNT:

RECORD. ALL CITATIONS AVAILABLE IN THE RE FORMAT

L40 ANSWER 3 OF 18 CAPLUS COPYRIGHT 2006 ACS on STN
ACCESSION NUMBER:
DOCUMENT NUMBER:

2003:286777 CAPLUS
138:411108

Synthesis and Properties of Rhodium(III) Porphyrin

Cyclic Tetramer and Cofacial Dimer
Fukushima, Keiko; Funatsu, Kenji; Ichimura, Akio; Sasaki, Yoichi; Suzuki, Masamitsu; Fujihara, Tetsuaki;

Tsuge, Kiyoshi; Imamura, Taira
Division of Chemistry, Graduate School of Science, Hokkaido University, Sapporo, 060-0810, Japan

Inorganic Chemistry (2003), 42(10), 3187-3193

CODEN: INOCAJ; ISSN: 0020-1669

American Chemical Society

PUBLISHER:
DOCUMENT TYPE:
LANGUAGE:

English

CASREACT 138:411108

AB Rhodium(III) porphyrin complexes, [Rh(4-PyT3P)Cl]₄ (1) and [Rh(2-PyT3P)Cl]₂ (2) (4-PyT3P = 5-(4-pyridyl)-10,15,20-tri(4-tert-butyl)phenylporphyrinato dianion, 2-PyT3P = 5-(2-pyridyl)-10,15,20-tri(4-tert-butyl)phenylporphyrinato dianion), were self-assembled and characterized by 1H NMR spectroscopy, IR spectroscopy, and electron spray ionization-mass spectroscopy methods. The spectroscopic results certified that the **rhodium porphyrin** complexes 1 and 2 have a cyclic tetrameric structure and a cofacial dimeric structure, resp. The x-ray structure anal. of 1 confirmed the cyclic structure of the complex. The Soret bands of both oligomers were significantly broadened by excitonic interactions between the porphyrin units, compared to those observed for a corresponding analog of Rh(TTP) (Py)Cl (TTP = 5,10,15,20-tetratolylporphyrinato dianion, Py = pyridine). Stepwise **oxidation** of the porphyrin rings in the oligomers was observed by cyclic voltammetry. The oligomers 1 and 2 are very stable in solution, and they slowly undergo reactions with pyridine to give corresponding monomer complexes only at high temps. (-apprx.80°).

REFERENCE COUNT: 23 THERE ARE 23 CITED REFERENCES AVAILABLE FOR THIS

RECORD. ALL CITATIONS AVAILABLE IN THE RE FORMAT

L40 ANSWER 4 OF 18 CAPLUS COPYRIGHT 2006 ACS on STN
ACCESSION NUMBER:
DOCUMENT NUMBER:

2002:189892 CAPLUS

Electrochemistry of a series of **rhodium**

porphyrins: new understanding of the relationship between electrochemical properties and coordination properties of the **rhodium**

porphyrins

DiMaggio, Stephen G.; Sun, Haoran; Biffinger, Justin; Nelson, Andrew P.

Department of Chemistry, University of

Nebraska-Lincoln, Lincoln, NE, 68588-0304, USA

Abstracts of Papers, 223rd ACS National Meeting,

Orlando, FL, United States, April 7-11, 2002 (2002),

INOR-289. American Chemical Society: Washington, D.

C.
CODEN: 69CKQP
Conference; Meeting Abstract
English

DOCUMENT TYPE:
LANGUAGE:
AB The electrochem. properties of a series of rhodium thiaporphyrins and perfluorinated **rhodium porphyrins** are investigated by cyclic voltammetry, square wave voltammetry, macroelectrode steady voltammetry, in-situ spectroelectrochem., and digital simulation in various media. The electrochem. properties are strongly dependent on the coordination properties of the **rhodium porphyrins**. For example, when triphenylphosphine presents in 1,2-difluorobenzene solution two steps reversible one-electron **oxidation** of rhodium(I) thiaporphyrin instead of one step irreversible two-electron **oxidation** of perfluorinated rhodium(I) porphyrin are observed. The detailed electrochem. reaction mechanism and the relationship between electrochem. properties and coordination properties of the **rhodium porphyrins** are discussed.

L40 ANSWER 5 OF 18 CAPLUS COPYRIGHT 2006 ACS on STN
ACCESSION NUMBER: 1997:483409 CAPLUS
DOCUMENT NUMBER: 127:168078
TITLE: Electrochemical generation of **rhodium porphyrin** hydrides. Catalysis of hydrogen evolution
AUTHOR(S): Grass, Valerie; Lexa, Doris; Saveant, Jean-Michel
CORPORATE SOURCE: Laboratoire d'Electrochimie Moleculaire de l'Universite Denis Diderot, Unite Associee au CNRS No 438, Paris, 75251, Fr.
SOURCE: Journal of the American Chemical Society (1997), 119(32), 7526-7532
CODEN: JACSAT; ISSN: 0002-7863
PUBLISHER: American Chemical Society
DOCUMENT TYPE: Journal
LANGUAGE: English
AB In polar solvents, Rh(III) porphyrins are directly reduced in Rh(I) complexes which react readily with Brønsted acids to give Rh(III) hydrides. They then undergo, at a more neg. potential, an addnl. electron uptake to yield the corresponding Rh(II) hydrides. The electrogenerated rhodium(II) complex is the key intermediate of catalytic hydrogen evolution according to a mechanism which heavily depends on the solvent and on axial ligands. In DMSO, hydride transfer from Rh(II)H- to the acid, yielding H2, competes with hydride transfer reduction of the solvent by both Rh(III)H and Rh(II)H-. In a less-complexing solvent, such as butyronitrile, hydrogen evolution occurs both by hydride transfer to the acid and H-atom abstraction to the solvent. The latter pathway is shut off by the addition of strong and soft ligands such as tertiary phosphines. With PEt3, a particularly strong electron-donating ligand, not only Rh(II)H- but also Rh(III)H triggers H2 evolution. The various changes of the hydrogen evolution mechanism as well as the stability of the catalyst can be rationalized by the variation of the electron d. distribution brought about by the presence or the absence of the axial ligand.

REFERENCE COUNT: 67 THERE ARE 67 CITED REFERENCES AVAILABLE FOR THIS RECORD. ALL CITATIONS AVAILABLE IN THE RE FORMAT

L40 ANSWER 6 OF 18 CAPLUS COPYRIGHT 2006 ACS on STN
ACCESSION NUMBER: 1997:211300 CAPLUS
DOCUMENT NUMBER: 126:322342
TITLE: Reductive Electrochemistry of **Rhodium Porphyrins**. Disproportionation of Intermediary Oxidation States
AUTHOR(S): Grass, Valerie; Lexa, Doris; Momenteau, Michel; Saveant, Jean-Michel
CORPORATE SOURCE: Laboratoire d'Electrochimie Moleculaire, Universite Denis Diderot, Paris, 75251, Fr.
SOURCE: Journal of the American Chemical Society (1997),

119(15), 3536-3542
CODEN: JACSAT; ISSN: 0002-7863
American Chemical Society
English

DOCUMENT TYPE:
LANGUAGE:
AB The reduction of rhodium(III) porphyrins in polar aprotic solvents is a two-electron irreversible reaction yielding directly the Rh(I) complex. The cause of this irreversibility is not the metal-metal dimerization of the initially formed Rh(II) complex as believed earlier but rather deligation which generates a secondary Rh(II) species easier to reduce than the starting Rh(III) porphyrin. This is confirmed by the fact that sterically encumbered porphyrins, such as those bearing cross-trans basket-handle superstructures which forbid the approach of two mols. at bonding distance, exhibit the same behavior as simple **rhodium porphyrins**. The occurrence of such an ECE-disproportionation process, seldom observed in the redox chemical of metalloporphyrins or similar complexes, is probably related to the tendency of the rhodium atom to shift out of the porphyrin plane, particularly at the Rh(I) **oxido** state. It is remarkable that strong and soft ligands, e.g., tertiary phosphines, annihilate the disproportionation of the rhodium(II) complex.

REFERENCE COUNT: 58 THERE ARE 58 CITED REFERENCES AVAILABLE FOR THIS RECORD. ALL CITATIONS AVAILABLE IN THE RE FORMAT

L40 ANSWER 7 OF 18 CAPLUS COPYRIGHT 2006 ACS on STN
ACCESSION NUMBER: 1995:775551 CAPLUS
DOCUMENT NUMBER: 123:228440
TITLE: Novel chemistry of highly reactive metal complexes: oxidative cross-linking of proteins mediated by a nickel-peptide complex and investigations of the **rhodium porphyrin**-catalyzed cyclopropanation of olefins by diazo esters
AUTHOR(S): Brown, Kathleen Corinne
CORPORATE SOURCE: Univ. of Texas, Austin, TX, USA
SOURCE: (1994) 189 pp. Avail.: Univ. Microfilms Int., Order No. DA9519254
From: Diss. Abstr. Int., B 1995, 56(2), 821
Dissertation
English

DOCUMENT TYPE:
LANGUAGE:
AB Unavailable

L40 ANSWER 8 OF 18 CAPLUS COPYRIGHT 2006 ACS on STN
ACCESSION NUMBER: 1993:436225 CAPLUS
DOCUMENT NUMBER: 119:36225
TITLE: Factors influencing the site of electroreduction in **rhodium porphyrins**
AUTHOR(S): Kadish, K. M.; Hu, Y.; Tagliatesta, P.; Boschi, T.
CORPORATE SOURCE: Dep. Chem., Univ. Houston, Houston, TX, 77204-5641, USA
SOURCE: Inorganic Chemistry (1993), 32(14), 2996-3002
CODEN: INOCAJ; ISSN: 0020-1669
DOCUMENT TYPE: Journal
LANGUAGE: English
AB The electrochem. of Rh(III) porphyrins containing bound phosphine, isocyanide, or carbene axial ligands was studied by cyclic voltammetry and UV-visible spectroelectrochem. in THF and CH2Cl2 containing Bu4NPF6 as supporting electrolyte. The studied compds. are represented as [TPPRh(L)2]PF6, (TPPRh(L')PF6, or (TPPRh(PF3)(OH), where TPP is the dianion of tetraphenylporphyrin, L = PPh3, PPh2Me, and CNCH2Ph, and L' = C(NHCH2Ph)2. The addition of 1 electron to these complexes leads to 1 of 2 different reduction products, depending upon the temperature and the specific set of axial ligands. Some of the complexes are reversibly reduced by 1 electron to give a transient Rh(III) porphyrin π anion radical, while others are irreversibly reduced under the same solution conditions to give dimeric [(TPPRh)2]. In several cases, the addition of 1 electron gives a Rh(II)

The dimer at room temperature but a Rh(III) π anion radical at low temperature

UV-visible data suggest that all of the studied Rh(III) porphyrins are initially reduced at the porphyrin π ring system, and this is also the conclusion based on electrochem. criteria relating the potentials for **oxidation** and reduction of each metalloporphyrin in nonaq. media. The absolute p.d. between E1/2 for the 1st room temperature **oxidation** of a given complex in CH₂Cl₂ and the 1st low-temperature reduction of the same species in THF (the reaction is reversible) ranges at 2.22-2.32 V, suggesting that both electrode reactions involve the porphyrin π ring system. One of the species, (TPP)Rh(PPh₃)(OH), undergoes a slow conversion of the electrogenerated π anion radical to dimeric [(TPP)Rh]₂, and this reaction was followed as a function of time by thin-layer UV-visible spectroelectrochem. in THF. Exchange equilibrium involving bound PPh₃ and THF axial ligands were also studied in CH₂Cl₂ or THF by UV-visible spectroscopy. Both [(TPP)Rh(PPh₃)]⁺ and [(TPP)Rh(PPh₃)₂]⁺ are converted to [(TPP)Rh(PPh₃)(THF)]⁺ in neat THF, but the addition of 1.0 equiv of PPh₃ to these solns. leads to [(TPP)Rh(PPh₃)₂]⁺ as identified by UV-visible spectroscopy. The formation constant for this reaction was calculated as 103.1 using spectrophotometric methods.

L40 ANSWER 9 OF 18 CAPLUS COPYRIGHT 2006 ACS on STN
ACCESSION NUMBER: 1992:407531 CAPLUS
DOCUMENT NUMBER: 117:7531

TITLE: Asymmetric cyclopropanation of alkenes catalyzed by a rhodium chiral fortress porphyrin
AUTHOR(S): O'Malley, Sean; Kodadek, Thomas
CORPORATE SOURCE: Dep. Chem. Biochem., Univ. Texas, Austin, TX, 78712, USA
SOURCE: Organometallics (1992), 11(6), 2299-302
CODEN: ORGN7; ISSN: 0276-7333

LANGUAGE: English
AB The synthesis and catalytic cyclopropanation activity of a new porphyrin known as the chiral fortress macrocycle is reported. This mol. has optically pure naphthyl-pyrenyl groups appended directly to the meso carbons of the porphyrin. The iodoiodine derivative is a catalyst for the cyclopropanation of alkenes by Et diazoacetate. The syn cyclopropyl esters are the major product in each case examined except one. In some cases very high diastereoselectivity is observed. The enantiomeric excess resulting from chiral fortress-mediated reactions are modest.

L40 ANSWER 10 OF 18 CAPLUS COPYRIGHT 2006 ACS on STN
ACCESSION NUMBER: 1989:477131 CAPLUS
DOCUMENT NUMBER: 111:77131

TITLE: Synthesis and applications of metalloporphyrins. I. Porphyrins
AUTHOR(S): Ogoshi, Hisanobu
CORPORATE SOURCE: Fac. Eng., Kyoto Univ., Kyoto, 606, Japan
SOURCE: Yuki Gosei Kagaku Kenkyusho Koenshu (1989), 3, 23-31
CODEN: YGKKEI; ISSN: 0913-8463
DOCUMENT TYPE: Journal; General Review
LANGUAGE: Japanese

AB A review with 5 refs., on catalytic reactions using **rhodium porphyrin** complexes, especially **oxidation** of olefins, reduction of ketones, and aldol condensations.

L40 ANSWER 11 OF 18 CAPLUS COPYRIGHT 2006 ACS on STN
ACCESSION NUMBER: 1988:428951 CAPLUS
DOCUMENT NUMBER: 109:28951

TITLE: Electrochemical and spectroscopic studies of (P)Rh(R)(L) and [(P)Rh(L)₂]⁺ where P is the dianion of octaethyl- or tetraphenylporphyrin, R is a

σ -bonded alkyl group, and L is triphenylphosphine or dimethylphenylphosphine
AUTHOR(S): Kadish, K. M.; Ataullo, C.; Yao, C. L.
CORPORATE SOURCE: Dep. Chem., Univ. Houston, Houston, TX, 77004, USA
SOURCE: Organometallics (1988), 7(7), 1583-7
CODEN: ORGN7; ISSN: 0276-7333
DOCUMENT TYPE: Journal
LANGUAGE: English

AB The electrochem. and spectroelectrochem. of (P)Rh(R), (P)Rh(R)(L), and [(P)Rh(L)₂]⁺ where P is the dianion of octaethylporphyrin (OEP) or tetraphenylporphyrin (TPP), R is CH₃, C₂H₅, or C₄H₉, and L is triphenylphosphine or dimethylphenylphosphine are reported. At polarog. concns. of (P)Rh(R) (-apprx.10⁻³ M), the binding of 1 triphenylphosphine ligand and the formation of (P)Rh(R)(PPh₃) were observed. This contrasts to lower porphyrin concns. where the bis(triphenylphosphine) adduct [(P)Rh(PPh₃)₂]⁺ is formed in solution. Formation consts. for the conversion of (P)Rh(R) to (P)Rh(R)(PPh₃) were calculated by using electrochem. and spectroscopic methodologies and varied between 1.0 and 4.0 \times 10³ depending upon the porphyrin macrocycle (OEP or TPP), the specific R group, and the solvent (methylene chloride or benzonitrile). The electroredn. of (P)Rh(R)(PPh₃) initially leads to a porphyrin π -anion radical and the transient formation of [(P)Rh(R)(PPh₃)]⁻ was spectrally characterized on the thin-layer electrochem. time scale. The formation of a porphyrin π -anion radical is also observed after reduction of [(TPP)Rh(PPh₃)₂]⁺. This reaction was characterized by thin-layer spectroelectrochem. and provides the 1st example for reduction of a non- σ -bonded Rh(III) porphyrin at the porphyrin π -ring system.

L40 ANSWER 12 OF 18 CAPLUS COPYRIGHT 2006 ACS on STN
ACCESSION NUMBER: 1988:413536 CAPLUS
DOCUMENT NUMBER: 109:13536

TITLE: Electrochemical studies of dimeric rhodium(III) porphyrins containing a dibasic nitrogen-heterocyclic bridging ligand

AUTHOR(S): Liu, Y. H.; Anderson, J. E.; Kadish, K. M.
CORPORATE SOURCE: Dep. Chem., Univ. Houston, Houston, TX, 77004, USA
SOURCE: Inorganic Chemistry (1988), 27(13), 2320-5
CODEN: INOCJ; ISSN: 0020-1669
DOCUMENT TYPE: Journal
LANGUAGE: English

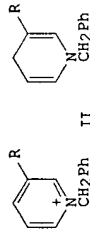
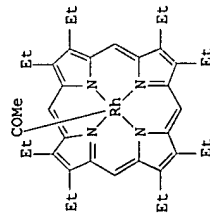
AB The electrochem. and spectroelectrochem. of [(P)RhCl]₂L, where P is the dianion of tetraphenylporphyrin (TPP) or octaethylporphyrin (OEP) and L is a conjugated dibasic N-heterocyclic ligand such as 4,4'-bipyridine (bpy), trans-1,2-bis(4-pyridyl)ethylene (BPE) or a nonconjugated N-heterocyclic ligand such as 1,2-bis(4-pyridyl)ethane (BPA) or 4,4'-trimethylenbis(pyridine) (TMDP), are reported. The Rh(III) dimers with BPA or TMDP nonconjugated bridging ligands undergo 1 irreversible metal-centered reduction in THF or methylene chloride. However, 2 overlapping irreversible metal centered redns. are observed for Rh(III) dimers that are linked via the conjugated bridging ligands, bpy and BPE. In all cases, [(P)Rh]₂ and the free N-heterocyclic ligand are generated as products from 1 or more chemical reactions that follow the metal-centered reduction of Rh(III) to Rh(II). Two reversible 2-electron **oxids.** are observed for [(P)RhCl]₂L, where L = BPE, BPA, and TMDP. This behavior contrasts with the case for [(P)RhCl]₂bpy, which undergoes a single reversible 2-electron transfer followed by 2 reversible 1-electron **oxids.** On the basis of the electrochem. and spectroelectrochem. data, an overall mechanism for reduction and **oxidation** of the [(P)RhCl]₂ complexes is presented.

L40 ANSWER 13 OF 18 CAPLUS COPYRIGHT 2006 ACS on STN
ACCESSION NUMBER: 1988:112169 CAPLUS
DOCUMENT NUMBER: 108:112169

TITLE: Photosensitized hydride transfer. Highly

regioselective 1,4-photoreduction of NAD(P)⁺ models under visible light with an organometallic rhodium(III) porphyrin as sensitizer
 Aoyama, Yasuhiro; Midorikawa, Koji; Toi, Hiroo; Ogoshi, Hisanobu
 Dep. Mater. Sci., Technol. Univ. Nagaoka, Niigata, 940-21, Japan
 Chemistry Letters (1987), (8), 1651-4
 CODEN: CMLTAG; ISSN: 0366-7022
 Journal
 English
 CASREACT 108:112169

AUTHOR(S):
 CORPORATE SOURCE:
 SOURCE:
 DOCUMENT TYPE:
 LANGUAGE:
 OTHER SOURCE(S):
 GI



AB On irradiation with visible light the Rh porphyrin complex I catalyzed the reduction of pyridinium ions II (R = CONH2, Ac) by Ph4P- with Me2CHOH as a proton source to give the 1,4-dihydropyridines III as the sole reduction products and biphenyl as the oxidation product of Ph4P-.

L40 ANSWER 14 OF 18 CAPLUS COPYRIGHT 2006 ACS on STN
 ACCESSION NUMBER: 1987:624874 CAPLUS
 DOCUMENT NUMBER: 107:224874
 TITLE: Electrochemistry of rhodium porphyrins

AUTHOR(S):
 CORPORATE SOURCE:
 SOURCE:

DOCUMENT TYPE:
 LANGUAGE:
 AB Unavailable

L40 ANSWER 15 OF 18 CAPLUS COPYRIGHT 2006 ACS on STN
 ACCESSION NUMBER: 1986:108822 CAPLUS
 DOCUMENT NUMBER: 104:108822
 TITLE: Catalytic reactions of metalloporphyrins. 1. Catalytic modification of borane reduction of ketone with rhodium(III) porphyrin as catalyst

AUTHOR(S):
 CORPORATE SOURCE:
 SOURCE:

DOCUMENT TYPE:
 LANGUAGE:
 AB (Octaethyl- or tetraphenylporphyrinato)rhodium(III) chloride shows an

BH4-

efficient catalysis in the aerobic reduction of ketone with NaBH4 in THF. The initial step in the catalytic cycle is the rate-determining complexation of with Rh(III) porphyrin (RhIII + BH4- → RhIII-BH4) followed by a rapid borane transfer from the adduct to ketone to give dialkoxaborane and hydridorhodium species. In the subsequent step, the Rh-H species undergoes oxidation with O2 back to Rh(III) with concomitant hydrolysis of dialkoxaborane to aic. Essentially, autorecycling Rh(III) and Rh-H act as a borane generator and proton source, resp., in a catalytic manner. Furthermore, the RhIII-BH4 complex capable of transferring borane to ketone lacks what is characteristic of free borane, i.e., facile oxidation with O2 and ready hydrolysis with H2O. Thus, the present system provides a highly efficient, catalytic modification of synthetic reactions of borane in the presence of oxygen.

L40 ANSWER 16 OF 18 CAPLUS COPYRIGHT 2006 ACS on STN
 ACCESSION NUMBER: 1984:414298 CAPLUS
 DOCUMENT NUMBER: 101:14298
 TITLE: Optical absorption and ESR spectra of monomeric rhodium(II) tetraphenylporphyrin in 2-methyltetrahydrofuran solution at 77 K

AUTHOR(S):
 CORPORATE SOURCE:
 SOURCE:
 DOCUMENT TYPE:
 LANGUAGE:

AB Rh porphyrins have aroused much attention because of the wide variety of their chemical reactions. For instance, Rh porphyrins readily react with the simple mols. H2, O2, and NO to produce hydride, oxygen, and nitric adducts, resp. The Rh atom incorporated in porphyrin ligands is known to have 3 oxidation states, +1, +2, and +3. However, monomeric Rh(II) porphyrins have neither been isolated nor detected spectroscopically because of their propensity to facile dimerization. This note reports the optical absorption and ESR spectra of monomeric Rh(II) tetraphenylporphyrin (RhITPP) produced by photolysis of chloro(tetraphenylporphinato)rhodium(III) (ClRhIIITPP) and dimeric RhIIITPP (RhIIITPP2) in 2-methyltetrahydrofuran solns. at 77 K.

L40 ANSWER 17 OF 18 CAPLUS COPYRIGHT 2006 ACS on STN
 ACCESSION NUMBER: 1981:507654 CAPLUS
 DOCUMENT NUMBER: 95:107654
 TITLE: Dioxygen and nitric oxide complexes of rhodium porphyrins

AUTHOR(S):
 CORPORATE SOURCE:
 SOURCE:
 DOCUMENT TYPE:
 LANGUAGE:

AB (RhOEP)2 (H2OEP = octaethylporphine) reacts with O to form RhOEP(O2) (S = 1/2), which subsequently forms the μ-peroxo complex (RhOEP)2O2. EPR studies of RhOEP(O2) and RhITPP(O2) (H2ITPP = tetraphenylporphine) and their 1:1 donor complexes are reported and compared with those of the Co analogs. (RhOEP)2, RhOEP(H), and RhOEP(Cl) all react with NO to ultimately produce the same product, RhOEP(NO). The reactions of RhOEP(Cl) and RhITPP(Cl) with NO proceed through a metastable paramagnetic intermediate Rh(por)(Cl)(NO) (por = porphine) which from EPR and electronic spectral studies is formulated as containing a porphyrin π-cation radical unit with an 2A1u ground state. RhOEP(NO)(Cl) assoccs. to form a radical dimer (S = 1) with D = 5.17 + 10-3 cm-1, E = 2.4 + 10-4 cm-1, but only monomeric RhITPP(NO)(Cl) is observed. Electrochem.

studies of Rh(III) porphyrins also support the porphyrin cation radical formulation for Rh(por)(NO)(Cl) complexes.

L40 ANSWER 18 OF 18 CAPLUS COPYRIGHT 2006 ACS ON STN
ACCESSION NUMBER: 1973:111487 CAPLUS
DOCUMENT NUMBER: 78:111487
TITLE: New rhodium(II)-porphyrin complex. II. Synthesis and oxidative alkylation
AUTHOR(S): Ogoshi, H.; Omura, T.; Yoshida, Z.
CORPORATE SOURCE: Dep. Synth. Chem., Kyoto Univ., Yoshida, Japan
SOURCE: Journal of the American Chemical Society (1973), 95(5), 1666-8
CODEN: JACSAT; ISSN: 0002-7863
DOCUMENT TYPE: Journal
LANGUAGE: English
AB Treating N-methyloctaethylporphyrin with di- μ -chlorobis[dicarbonylrhodium (II)] gave a rhodium (II) porphyrin complex containing 1 N-methylporphyrin and one [Rh(CO)₂Cl]₂ and formulated as [N-methylporphyrin] [Rh(CO)₂Cl]₂ (I). Spectral data indicate N-H and N-Me bonds on the porphyrin inner core. The 220 MHz NMR spectrum of I shows quite low symmetry for the porphyrin frame. I is oxidized to a mono-Rh(III) porphyrin complex with loss of the N-Me₃ bond and methylation of the Rh(III) atom.

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